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Communications.

THE EXAMINATION OF PATIENTS.

A Clinical Lecture Delivered at the Medico-Chirurgical College of Philadelphia,

BY PROF. H. ENGEL, M. D.

As there is, accidentally, no new case on hand that would permit me practically to demonstrate some of those nervous diseases, of which I have thus far given you a theoretical description in my didactic lectures, I shall endeavor to train you in the examination of patients. As consulting physician, I have often had the opportunity to make the following observation: A young doctor is called to attend a patient, but notwithstanding his best efforts, he does not succeed in recognizing the nature of the malady, from which the sick individual is suffering. He ultimately asks, perhaps, his former preceptor to see the case with him, and, to his surprise, while his teacher is questioning the patient, everything appears clear to him, the veil seems to be lifted from his eyes, and he correctly diagnosticates the disease, before the consultant has concluded the investigation and pronounced his opinion. Again, let two physicians, equally expert, together consult at the bedside of a sufferer, and let the one be the attending, the other the consulting physician, the nature of the case being so complicated as to make an exchange of opinion desirable. Certainly the attending doctor, who has, probably, visited the patient several times previously, may be supposed to know more about the case than his colleague, who sees the sick individual for the first time. The consultant commences his examination; from a few questions, the attending physician at once recognizes that his confrère is on a wrong scent, and to save him unnecessary labor, by a remark or two he guides his colleague's view of the case into a totally different channel, which, as one single question may announce to the attending doctor, again is a mistaken one, and which is once more corrected in a similar manner, until, finally, the examination reaches the point where the superior skill of the one or the other will decide the doubtful diagnosis.

In the first case cited, the young physician recognizes in the series of questions which his teacher puts to the patient a familiar picture of a disease known to him, while in the second case the attending physician had previously followed the same wrong paths, that he observes his colleague to take. To enable you to examine a patient in such a manner, as at once to permit the listener, if an expert, to guess the disease whose existence you wish to establish, or in other words, to know how to diagnosticate a disease with the least possible waste of time and with the greatest certainty, you ought to be trained. Though it must always be based upon accurate scientific knowledge, the diagnosticating of disease really is an art. To master it, you must practice it after you have been taught how; you must perfect your senses for the same end, and ought to possess some talent. What is called intuitively recognizing a disease is nothing else but the most perfect art developed in a natural talent; the mind reasons in such a case with a rapidity as to make its possessor unconscious of it, while his art enables him to jump, as it were, at a conclusion,

though, in fact, the same stages are gone through, but so quickly as to appear omitted. Even the most expert, however, if wise, will never rely upon such a diagnosis; he will apply the necessary tests to obtain the scientific proof.

You will have frequently observed, that after a question or two, sometimes by only looking at a patient, I recognized his disease. This intuitive knowledge I cannot communicate to you; you have to acquire it. But I can teach you the way to obtain it, and that is done by training. When you have practiced a certain manner of examining patients in hundreds or thousands of cases, you will gradually reach the zenith of the art, and become an accomplished diagnostician. But if you follow at the bedside in each case a different plan, a varying mode of procedure to arrive at a diagnosis, if you adopt no special method, you will obtain no result from your experience. Neither will you be successful if you should only rely on your art alone, without taking care to possess the necessary scientific knowledge. Indeed, your theoretical instruction regarding the etiology, pathology, diagnosis, and differential diagnosis of diseases should be complete in every respect, ere you commence to adopt a method of examining patients, and ere you try to perfect yourselves in the same. With this proviso I shall commence your training.

As it may be better at once to give you a practical demonstration of what I am about to teach you, and as it would be important for such a purpose to use for illustration one and the same case, let me ask you whether one of you gentlemen would be willing to serve as a clinical patient? Should there be one amongst you who is suffering from a pathological condition, he would be the more welcome.

(I. S., a member of the senior class, here rose, pronounced himself to be ailing from a morbid condition, and expressed his willingness to serve as clinical patient. At the request of the lecturer he stepped into the arena and took the usual seat of patients.)

Gentlemen, as Mr. S. has kindly volunteered to assist me in my efforts, I shall try practically to demonstrate on him what I have to say to you. He admits that he is suffering from a disease, of which I have no idea of what it may be. I must confess that the general impression which he makes upon me as diagnostician, teaches me nothing. I am, therefore, utterly unable to tell you beforehand whether he really is a patient, and what his disease. I am glad of this fact, as it will give me a still better opportunity to examine him strictly secundum lege artis, according to the law of the art.

The method which I shall adopt is one, with few alterations, pursued by all clinicians. Follow my advice, gentlemen, to examine every patient in exactly the same manner. Once more I repeat that such a procedure alone can make you accomplished diagnosticians.

As a general rule, when a patient enters your office, or when you visit him for the first time, at once study his face, his manner of walking, his mode of breathing, and everything that the eye can teach you. The flushed face of fever, the pale countenance of anæmia, the cachectic complexion of cancer, phthisis, morbus Brightii, heart disease, etc., the imbecile look of the idiot, the anxious expression of the drunkard laboring under the hallucinations of delirium tremens, the apathy visible in softening of the brain or in stupor, the Hippocratic face as the forerunner of death—all these and many others, too numerous to mention, will at once guide your thoughts in a certain direction, and cause you to concentrate your diagnostic efforts. Thus the existence of paresis or paralysis, and other motor disturbances, as observed when the patient moves about, the presence of affections of the respiratory organs, as evinced by the patient's breathing, and many other useful informations, all obtained from our inspection of the patient, ere we even accost him, may be gained in the manner indicated.

A patient is generally excited when confronted the first time with his physician. It is of great importance to allay this fear and anxiety, and we best reach this object by permitting him to talk of the affairs concerning others; but that we may obtain at the same time knowledge, which may aid us in the recognition of his disease, we usually begin with the family history. From it we learn the existence or non-existence of hereditary disease—whether cancer, tuberculosis, scrofula, nervous diseases, or any other ailment be hereditary in the family. The information thus gained is not only of value in a diagnostic point of view, but also regarding prognosis. For instance, a patient having been attacked by pneumonia comes to us with a part of the lung consolidated. The complete absence of tuberculosis in his family gives us strong hope of curing the lung disease by causing absorption of the inflammatory products, which induced the solidification of the pulmonary parenchyma, while the presence of a hereditary tubercular taint foretells the earlier or later breaking-down of the diseased tissue, the deposit of tubercles, if they are not already un-

dermining the consolidated lung, and the fatal issue of the case.

It would lead me too far to enumerate to you all the points that the family history may give us. The detailed study of the etiology of every disease will make you acquainted with them. I shall now make a practical application of what I told you, in the case of our friend S. As I have already explained to you, the mere inspection of him teaches me nothing, except perhaps, that the slightly bluish tint of his face denotes some circulatory disturbance. The fact of his wearing spectacles somewhat obscures the view. I cannot read the exact expression of his eyes, and it may be that I thus lose some information which I might have obtained otherwise.

"Is your father living, and if so, does he enjoy a good health?"

"Yes sir, he is a healthy man, and only occasionally complains of rheumatic pains, he having suffered once or twice from acute rheumatism."

Gentlemen, from this reply we learn only, that rheumatism seems to be in the patient's family. Rheumatism, I mean acute articular, is apt to give rise to heart disease. This, if present in the patient, is sometimes inherited by the offspring, but not necessarily. For the time being we store this information in our mind, proposing at the physical examination specially to examine that organ.

"Does your father ever complain of difficulty of breathing, or of palpitation, or of dyspepsia, or of giddiness, or has he ever had any other symptom of disease besides the rheumatic pains?"

"No, sir. As I said, he is always enjoying the best health, excepting his occasional rheumatic pains."

Treating our patient not as a student of medicine, I asked these questions to discover whether his father had been evincing any symptoms indicating organic disease of the heart. From the reply I infer that such has not been the case.

"What can you tell us of your mother?"

"She died in childbed, on the second day after delivery, after having previously been healthy. She had never complained of any illness."

In this direction the information also is a negative one. "Died in childbed," generally is a very uncertain answer, and when you receive it you must push your inquiry further to obtain the conviction that there really was no disease, to which the patient accidentally fell a victim at the time of delivery.

"Did any brothers or sisters, uncles or aunts, die of any hereditary disease?"

"No sir: they either died of acute diseases, as small-pox, pneumonia, etc., or in childhood, from diseases incident to this period of life, or their death was caused by an accident."

Again negative. In the case of a patient less educated and possessing no medical knowledge, I would have investigated the cause of each death that had happened in the family, and would not have been satisfied with the name of the disease, but tried, if possible, to obtain a description of its symptoms, especially if I had reason to expect important information; but here to save time I have made the inquiry in this general manner. As a rule be careful not to ask so-called leading questions; always try indirectly to elicit the desired knowledge.

"Are any of your sisters or brothers not in good health?"

"No; except one sister, who, during the colder season of the year, frequently contracts a bronchial catarrh, though otherwise she too is healthy."

These attacks of bronchitis are common, though when met with in ladies, who are not forced to be exposed to the vicissitudes of inclement weather; they generally indicate some hereditary tendency. Either scrofula, tuberculosis, or diseases affecting the circulatory apparatus, are apt to be present in the family of such women. This information we shall also store for a future occasion.

Not having succeeded in throwing any light upon the case by the family history, we will now proceed carefully to investigate the patient's own life, starting from birth and following it up to the present day; for the fact that he was delivered by the aid of the forceps—an information usually obtained from the patient's mother—or that he suffered from convulsions when an infant, and many other occurrences even during earliest childhood, may have a bearing upon his present condition. Next we find out his occupation, and here never be satisfied with such general answers as: laborer, mechanic, etc. Inquire after his real work. Thus, in a painter, you at once think of lead-poisoning; in a coal miner you would search for the coal dust in his lungs; in other occupations, as those of a weaver, a stone-mason, etc., you also have reason to be suspicious of a lung disease, as such is of frequent occurrence in this class of people; again, in another, the inhalation of mercurial vapor may have caused his ailment, or his working as a digger or plumber in damp, wet places, may have given rise to a malady, easily thus produced, and in a saloon or barkeeper you would at once think of the effects of

"treating." Then do not fail to inquire after the habits of a patient. Severe mental labor, carried on late at night, may at once show you the causing element; a drunkard is generally himself responsible for the disease from which he suffers, and individuals eating too little or too much cannot be surprised at their becoming ill. I once had a patient who complained of general lassitude, disinclination to work, sleeplessness, general loss of flesh, utter want of appetite, dyspepsia, constipation, and hallucinations, and of his feeling chilly. His health really seemed to have decidedly deteriorated, but notwithstanding the most searching medical examination, I could discover no lesion. The trouble had been lasting two months, and several physicians had vainly tried their skill. One day I spent over an hour with him, carefully going over his life during the last year, and investigating his habits. I then discovered that three months ago, when his wife with her children had left for England to visit some relations, the patient had commenced to eat in an irregular manner. This had caused dyspepsia, and to rid himself of it he followed the advice of a friend and adopted a diet which had cured the latter. In the morning he drank a glass of hot water, and ate two pieces of bran bread. At noon he made himself a cup of beef tea from Liebig's extract of meat (which, as well known, contains no nourishing material, but is only a stimulant), and with it he again took bran bread. At night one cup of milk and some more bran bread formed his supper. By the aid of this diet the poor man expected to regain his digestive powers, while in fact he was subjecting himself to a process of slow starvation. I put him on healthy, nourishing food, and ordered active outdoor exercise, and two weeks later he had gained twenty-three pounds, and was as healthy as almost ever before. This is an illustration of but one case. In others you will discover masturbation to be at the bottom of the disturbed health, while sometimes mental worriment, not sufficient sleep, too little fresh air, and sedentary habits, have produced the malady. When you have carefully learned everything about the patient, his occupation, habits, mode of living, etc., then inquire after every disease through which he has passed, beginning with those in childhood. For not seldom you will observe that a dropsy following scarlatina was never cured, or that a lung-trouble started with the measles in childhood; not to speak of those diseases which, as acute articular rheumatism, cerebro-spinal fever, etc., are apt but too often to leave some incurable malady as sequela. Syphilis may be in the system, or the individual may still suffer from malaria, whose first acute symptoms appeared some years previously. Sometimes he does not himself know this fact; then the locality in which he lives, and of which you are aware that its air is filled with the miasma of malaria, will tell you the tale.

You search, therefore, for every symptom or every disease which has attacked your patient at any time of his life. Be not satisfied with the name alone, but convince yourself by a description of the symptoms that the malady named really was the one from which he suffered. Then think of every possible sequela of such a disease, and not until you have satisfied yourself that there is no evidence of it in the system, let it drop from the consideration of the case.

That there are diseases specially characteristic of or belonging only to one sex, I scarcely need mention, and you will know that in the case of a female, in this inquiry after her personal history, you must not omit to examine the state of the sexual organs.

After you have elicited all the information that you can obtain regarding the ailments from which the patient suffered in his lifetime, you address yourself to the present disease. You try your utmost to learn its exact beginning, and then follow up its course to the present time. I cannot sufficiently impress you with the importance of this point. Frequently, if you can only obtain an exact description of the commencement of the malady, the diagnosis is established. Never attach weight to a name given; always ask for the symptoms, and thus recognize it. For instance, a patient tells you he had pneumonia a year ago, and dates his present illness from that time, while a description of the symptoms may convince you he had typhoid fever, or pleurisy, or only bronchitis, or something else.

What I have thus far told you concerning the patient's personal history, I will now apply to the case before us; for by this time, after I have been talking with him regarding the history of his family, he has gained confidence, and his initial excitement has vanished.

"What was the first disease in your life that you suffered from?"

"I have been remarkably free from the diseases of childhood, and with the exception of a slight cold I have never been ailing, until about three years ago, when my present trouble began."

"What did you occupy your time with after you ceased going to school?"

"I attended in the West to my father's cattle

ranche ; in other words, I have led the life of a cow-boy."

"How old are you ?"

"Twenty-eight years."

"You commenced the study of medicine about three years ago, and until that time you were enjoying active out-door exercise ?"

"Yes, sir; and from that time dates the beginning of my present illness."

"Did you ever have a chancre, or any indication of syphilis ?"

"No, sir; I never had any disease of the sexual organs."

"Were you ever affected with malaria ?"

"No, sir."

"Did your present disease commence suddenly or did it gradually develop ?"

"It crept slowly on me."

"What was the first symptom that told you you were not in the same health you used to be ?"

"A feeling of lassitude and disinclination to work."

"Describe to me the further progress of your ailment up to the present date."

"A state of general debility and anæmia gradually developed themselves ; I lost my appetite, and became listless. After this had lasted about a year, I somewhat improved under treatment, and returned to the mountains, but I soon found out that the quieter I kept and the less active exercise I had, the better I felt. The signs of anæmia slowly left me, but the general lassitude, the feeling of exhaustion after the least exertion, and an indescribable sensation of discomfort have continued until the present day and still annoy me."

"You are certain that you have not omitted any important statement ?"

"I have told you every symptom of my malady."

Gentlemen, from the personal history of the patient and from his description of his present illness we learn but the following : Until the time when he gave up his outdoor life and commenced the study of a profession his health was good, but after the symptoms of his disease had once made their appearance, the return to active outdoor exercise was not followed by an amelioration of the morbid condition. This fact seems to indicate to me, that probably for a long time there has been something wrong in his system ; there perhaps was some hereditary influence or some organic lesion, with which our patient was born, but which during his earlier growth or as long as he continued that mode and manner of life to which he was most accustomed, did not show itself. It always is an indication of a grave trouble, if a person, used to a country-life and becoming ill when leading a confined and sedentary existence, does not improve in the least when resuming his active exercise in the open air. Further I observed that Mr. S. was very cautious in his answers ; it seemed as if he tried to conceal something which he preferred to leave to my skill to discover. You see he smiles, a fact which confirms me in my suspicion.

When after the described mode of examination you have reached the point at which I have arrived in Mr. S's. case, you proceed to physical exploration, i. e., you investigate the condition of every organ. We may omit in this case an examination of the brain and of the spinal cord, for no indication whatever thus far points to a morbid condition of these organs. We will therefore at once explore the chest.

I find the percussion normal over both lungs, anteriorly and posteriorly, and auscultation reveals the normal vesicular murmur. We may say, therefore, that his lungs are healthy. The impulse of the heart is slightly heaving and can be felt in the fifth and sixth inter-spaces and over a greater area than is normally the case. Such an impulse denotes over-activity of the heart, and may be due to simple excitement of the organ. But applying my ear to the chest, to listen to the sounds of the heart, I find an abnormal condition, which promises an explanation of the morbid symptoms. I beg you to be as silent as possible for a few minutes.

Gentlemen, on carefully auscultating the heart I discover a murmur, whose seat of greatest intensity is to the left and a little above the nipple. It is best heard at the beginning of the second sound, in fact it precedes it, and it is, therefore, strictly speaking, a presystolic murmur. The lesion giving rise to such a murmur, is narrowing, constriction of the mitral orifice, or stenosis of the mitral valve. The second pulmonary sound is slightly accentuated, a fact generally met with in these cases.

The liver is somewhat enlarged, also a common occurrence in organic diseases of the heart. The spleen seems to be of normal size, while the conditions of the kidneys shall be inquired into by an examination of the urine, and the result be reported to you.*

Mr. S. suffers, therefore, from mitral stenosis. It is probable that he was born with it, for noth-

*Neither albumen, sugar, no trube-casts were discovered.

ing in his personal history points to an endocarditis, there having been no rheumatism nor other disease of the blood, nor an injury to the chest to account for it. The increase in the force of the impulse, which denotes an augmented action of the left ventricle, proves to me that there still is compensatory over-activity, but if the lesion had been acquired, there would be demonstrable hypertrophy, finally ending in dilatation of the organ. I do not doubt that there really is some hypertrophy, but it is so slight that percussion does not reveal it. Such a condition is generally met with only in cases born with the lesion, and we often observe under these circumstances an utter absence of all morbid symptoms until a more advanced age.

This case also teaches you not to expect in organic lesions of the heart any symptoms directly referring to the organ. Pain and palpitation are met with far more frequently in functional disturbances than in organic changes of the organ. You have seen in this case that the symptoms complained of were general in character, almost none indicating the existing pathological condition.

But even after you have established the diagnosis, as I did in this case, you must proceed in your examination of all the organs, for complications may exist which would either completely alter the diagnosis, or at least influence prognosis and treatment. Never be satisfied with the discovery of one morbid condition ; always investigate the whole system, and every part of it.

Here is no complication ; a mistake in the diagnosis cannot have happened.

"How long have you known that you suffered from this disease ?"

"Three years."

This fact, *i. e.*, the duration of the murmur, its constancy, proves its organic character. Besides, it is harsh and has a point of greatest intensity. It is neither an anæmic murmur, for such a one would be soft, be heard only at the base, would have long since improved under treatment, and other signs of anæmia would be present; nor is it one of those murmurs of which science has proven but recently that they simulate organic changes, viz., murmurs brought about by an alteration of the blood and a transient change in the size of the organ and the vigor of its action. Such murmurs, often simulating endocarditis, are heard at times in rheumatism. Here, as I said, the history of the case and the duration, constancy and harshness of the murmur, prove it to be due to organic change. Besides, the murmurs simulating morbid lesion usually take the place of the first sound.

In a similar manner you must always try to verify your diagnosis by excluding all diseases that might be mistaken for the one which you discovered. You next ask yourself concerning the prognosis of the case and its treatment. Mr. S. will know, as well as I, that he can never be cured of his complaint. But he may still live many years, until finally dilatation of the organ, or some other incident, especially concerning the lungs, bring about the final issue—though this may take so long that our friend may meanwhile have reached a high old age, and die of some other disease.

Regarding treatment, the patient should simply avoid everything that may overburden the heart. He should refrain from active exercise, but otherwise live according to hygienic rules. His case at present necessitates no special treatment. I might discuss more with you the therapeutic measures often called for by such cases; but as my object was to train you in the examination of patients, and as the hour is near to its end, I herewith close the clinic for to-day.

507 *Franklin street, Philadelphia.*

REPORT OF A CASE OF CONTUSION OF THE ABDOMEN, WITH SOME REMARKS.

BY LOUIS W. ATLEE, M. D.,
Of Philadelphia.

A. C., aged forty-seven years, American, country blacksmith, strong and robust, always enjoyed good health, with the exception of occasional attacks of cynanche tonsillaris. On Sunday evening, November 9, 1884, while handling a double-barrelled shot-gun, the load was unexpectedly discharged, the butt, in the recoil, dealing him a very hard blow in the right iliac region. The gun had the reputation of being a very hard "kicker," having knocked a boy "head-over-heels," as they said, the day before. Immediately after the blow he became so weak he had to be assisted to his room. He complained of being chilly, and had the appearance, it was said, of a man who had received a severe shock. Shortly afterwards agonizing pain in the belly came on, and he began to vomit. When I saw him, 48 hours after the injury, he was lying on his back, the legs drawn up ; the expression of face anxious and haggard (Hippocratic) ; the skin hot and dry ; tongue and mouth dry ; pulse 120, not very hard (there was some congenital aortic disease). The abdomen was very hard, and somewhat

swollen and tender to palpation over the seat of contusion. No external mark could be seen; percussion note tympanitic, except in right iliac region, where it was dull, not flat. Stomach rejected everything. The vomiting caused great pain; the vomited matters being regurgitated as it were. Respiration thoracic. The family physician said he feared invagination; he had given everything he knew to quiet the vomiting and move the bowels, but so far without success. He had given an enema of soap-suds and water, and gr. xx. calomel by the mouth, just before I arrived. I diagnosed a localized peritonitis, with some cause of obstruction of the bowel, probably from paralysis of the solar plexus, and advised giving nothing by the mouth but ice; enemas of laudanum and starch by the rectum; and to continue to use the poultices over the abdomen, as they had been doing before I saw him. At 7 a. m. the next morning (Wednesday), I saw him with my father, Dr. Walter F. Atlee; his expression was less anxious, complained of no pain, had slept a little, skin warm and moist, pulse 100, vomiting less frequent. Ordered milk and lime-water by the mouth, and to discontinue the enemas of laudanum and starch until the return of the pain. On Thursday evening he was better in every way. Milk and lime-water was retained. My father sent out one dozen of Spanish leeches to be applied over the seat of pain in the belly, but the family physician objected to their application on the plea of the patient being too weak, and they were never used. On the same evening the attending physician applied turpentine stripes over the abdomen, which he said relieved the intestines of much wind by the rectum. He also applied a fly-blister over the seat of injury. Neither myself nor my father saw him again until I was sent for in great haste November 19, 10:30 p. m. When I saw him soon afterwards he was lying on his back, legs drawn up, complaining of frightful pain in his belly, no pulse at wrist, vomiting, and every symptom of rapidly approaching dissolution. His physician told me he had been getting along very nicely up to that evening, with the exception of a slight diarrhœa, when he had the misfortune to get his feet entangled in the blanket wrapped around him as he was returning from the commode; he fell on his face on the floor, and immediately the symptoms which he had, now began. I said he had ruptured the intestine by the fall, and that I could do nothing. He was dead at 12:30 a. m., Thursday, November 20, just 10 days and 13 hours from the date of the contusion.

Post-mortem examination of the abdomen 92 hours after death. Body well preserved. No external mark of injury. Cuticle destroyed where blister was used. Skin of abdomen tense, umbilical region somewhat below the level of surrounding regions. On making the incisions, one from sternum to pubis, and a second at right angles to it above the umbilicus, gas escaped as soon as the peritoneal cavity was opened. Muscles of abdomen red and well developed. Adipose tissue three-quarters of an inch thick. The omentum was strongly adherent to parietes beneath the seat of injury. Intestines glued together by partially organized lymph, more or less injected. Between the parietal peritoneum and abdominal walls at the injured part, was a spot as large as the palm of the hand covered with extravasated clotted blood. In the intestine, lying to the right of the median line, midway between the umbilicus and pubis, was a jagged edged hole, large enough to admit the tips of four fingers; the intestine was empty and collapsed; the intestinal contents, the same as had been passed since the diarrhœa began, had gravitated into the flanks.

Not being permitted to make any further examination, we then closed the abdomen.

We have in the history of this case, a blow on the abdomen, followed by shock, peritonitis, symptoms of enteritis most probably from continuity of structure, a second injury to the abdomen, the fall, which was followed so closely by collapse and death in six hours—the post-mortem showing the intestine to have been ruptured.

In a monograph published in the "Guy's Hospital Reports" for 1858, 3d series, vol. 4, by Alfred Poland, entitled, *A Collection of Several Cases of Contusions of the Abdomen, Accompanied with Injury to the Stomach and Intestines*, I find the most thorough account of the subject.

I cannot do better than quote verbatim the opening paragraph: "A strike, kick or fall on the abdomen, a passage of a wheel over it, or a jamb between two opposing bodies, etc., must never be thought lightly of, and must always be regarded with suspicion and treated in a careful and judicious manner. Many a trivial blow in this region has resulted in unexpected and sudden death, although life has sometimes been prolonged for a short time in agony and suffering, terminating in collapse and death. This can be readily accounted for when we consider the numerous and vital structures contained in the abdomen; and also that these structures are enclosed within soft elastic parietes capable of great distension, while although readily able to resist

shock and extreme violence without injury to themselves, yet may allow the force to be transmitted and expended on the contents with dire effect, without an external mark."

A blow on the abdomen may cause sudden death (Sir Astley Cooper's case), or may be followed by simple traumatic peritonitis. Yet in by far the majority of instances of this class of injuries, some internal rupture or lesion always takes place, and in such cases life is seldom extinguished at once, but prolonged for a more or less short period, and ending fatally either in protracted collapse, or in fatal internal hemorrhage, or in subsequent severe peritonitis; few recover, and those only from circumstances of an extraordinary character. Injuries to the intestines may sometimes be followed by acute or chronic inflammation of the coats, causing what is termed traumatic gastritis, enteritis and colitis. One or all the coats of the bowel may be ruptured.

The effects of a ruptured bowel may be divided into two stages: The primary stage. The person feels the sensation of a blow; he gets up, but is soon seized with a peculiar depression of the nervous system, faintness, rigors, chilliness, and collapse. When the slight reaction ensues, the patient complains of the excruciating pain at the seat of injury, the features assume the Hippocratic expression, vomiting begins, the belly swells, and the abdominal muscles become hard and rigid. There may be retention of urine. These symptoms are caused by the effusion of the contents of the bowel into the peritoneal cavity, and will be modified accordingly as the bowel is full or empty, and the size of the rupture, and they will be more severe as the rupture is situated—the further from the stomach the less severe, and *vice versa*.

The secondary effects develop themselves in from six to twenty-four hours. These consist in all the symptoms of traumatic peritonitis. If immediately after the injury the abdomen becomes tense and tympanitic, it is a sure symptom that the bowel has been ruptured and allowed the air to escape.

The most general result of rupture of the intestine is death, which may come on during the primary stage of collapse, or from the subsequent peritonitis.

Recovery is possible, depending on the size and seat of the rupture and the condition of the bowel, but above all on the treatment adopted.

Repair may take place by the torn bowel adhering to some of the near structures, or the effusion may be circumscribed, abscess follow, a stercoraceous fistula resulting.

The most appropriate treatment is perfect rest on the back, nothing but ice to suck by the mouth, and opium to allay pain and the peristaltic action of the intestines.

Leeches may be put on during the inflammatory stage with benefit. Blisters are harmful. Warm fomentations are grateful to the sufferer. No food should pass the lips till after the fifth day; all food and stimulants necessary should be given in enemas.

If the symptoms of approaching dissolution are not too imminent where one is called to a case of ruptured intestine, could not the abdomen be laid open by an incision, the ruptured bowel sought for and sutured? When the rupture is very small, there will not likely be any extravasation, and the symptoms will not be so alarming, more especially if the rupture is in a part of the bowel distant from the stomach, and nothing has been given by the mouth. Such cases, no doubt are more numerous than believed, being looked upon as cases of simple traumatic peritonitis. But seeing that when the bowel has been torn sufficient to allow of extravasation, the result has been invariably fatal, with one exception (a case of circumscribed extravasation, followed by stercoraceous fistula, afterwards pyæmia and death), should not the only chance possible be given, *i. e.*, that of closing the torn gut? Life has been saved when death was imminent by removing a brust ovarian cyst, a ruptured extra-uterine fœtal cyst, or what is more to the point, by removing the cause, in obstruction of the intestine. If the small intestine were torn, the better course to follow would be to suture the rent, and clean the peritoneal cavity; if the large intestine, the edges of the rent could be united to the edges of the incision in the abdominal wall, establishing a fœcal fistula.

210 *S. 13th Street, Philadelphia.*

Hospital Reports.

ON THE TREATMENT OF ERUPTIVE FEVERS.

BY PROFESSOR DUJARDIN-BEAUMETZ.

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Translated from advance sheets by Dr. Hurd, of Newburyport, Massachusetts.

Gentlemen: By their symptomatic aggregate the eruptive fevers constitute a natural group in the class of fevers, and the therapeutic indications which pertain to them deserve to arrest our attention for a short time. Of these so-called zymotic fevers, small-pox possesses especial interest on account of the prophylactic treatment peculiar to

this disease, and on this subject I have a good deal to say.

In consequence of the hideous aspect which the face presents when covered with pustules, the repulsive odor that comes from the patient, the unsightly cicatrices which the malady leaves behind it, and its extreme contagiousness, small-pox merits to be regarded as one of the most terrible of epidemics, and it is an important duty, on the first appearance of this formidable scourge, to endeavor by every means to limit its ravages.

Do not persuade yourselves, gentlemen, that this word ravages is a figure of speech, it is on the contrary the vigorous expression of the truth. When in fact small-pox smites populations which have had no protection or immunity from the disease, as is sometimes seen in certain races that inhabit the interior of Africa, or the Polynesian Islands, whole communities have been swept away by the lethal epidemic, and you can judge of the fatality of these epidemics, in recalling what happened only three years ago (in 1880), at the time of the arrival in Paris of a tribe of Esquimaux, which contracted small-pox during its peregrinations in Europe. All were attacked, and all succumbed. The observation of facts furnished a first means of preservation; it was remarked that persons who had once had the disease were ever after protected from its invasion, and either as the result of accident, or by a process of experimentation, inoculation for the prevention of small-pox came into vogue.

This inoculation or variolation has been, for many centuries, practiced by the Chinese, who make use of pock-scabs which they introduce into the nasal fossa. Then it was put in use in Circassia to protect young girls who were to be sold in the markets of Constantinople, and it is from this source that the wife of the English Ambassador, Lady Mary Wortley Montague, in 1721, obtained her knowledge of inoculation, which she communicated to the people of her country, whereupon this practice speedily spread over all Europe. But notwithstanding all the precautions that were taken, this variolation was not without danger, for inoculation from a mild case of the disease may engender small-pox in its most serious form, and although a real progress was made by inoculation, there was nevertheless a mortality of least one in three hundred. Jenner, who was as you know, a physician-inoculator in England, by his immortal discovery, substituted vaccination for inoculation, and from henceforth civilized man was in possession of a perfect prophylactic treatment for small-pox.

I shall not here discuss the value of vaccination. I am aware that there exists a small and uninfluential group of physicians who, under the name of anti-vaccinators, pretend that not only is the discovery of Jenner inefficacious, but that it is even dangerous; but their specious arguments have not lessened the preservative value of vaccine, a value to-day indisputable, and which all the countries of Europe and of the world make haste to recognize, by favoring the promotion of vaccination, and by making it a legal obligation. France has not yet enforced this obligation by legislative enactment, although it has done so in a round-about way, by making attendance at schools and military service obligatory, and in requiring a certificate of vaccination and of revaccination as a condition of admission to the public schools and the army.

I shall not examine here all the questions which the origin of vaccine has raised, viz., whether it comes exclusively from the cow or in the first instance from the horse. Whether cow-pox and horse-pox are anything but real small-pox developed in animals? Whether there is identity between human variola and animal variola? These are problems of experimental physiology which are far from being solved, despite numerous laborious investigations, in particular those of the veterinary school of Lyons and its chief Chauveau. Yes, it seems demonstrated that horse-pox and cow-pox are the small-pox of the horse and cow, but when you come to inoculate these animals with the human pock you obtain a product which gives you for the human subject not kine-pox but small-pox. The identity of vaccine virus and variola virus is only a hypothesis, but which will shortly become a scientific reality, thanks to the brilliant discovery of attenuated virus by our illustrious colleague Pasteur.

I cannot here resist the desire to say a few words concerning this doctrine, which, originating only a few years ago, occupies so great a place in the prophylactic treatment of diseases, and which has thrown so much light on the history of virulent and infectious maladies.

Carrying out the fruitful line of inquiry suggested by vaccination, Pasteur has shown that it is possible by special cultures of microbes, the supposed agents of contagion in virulent diseases, to change the character of the bacilli, or, to use the happy expression of Bonley, to domesticate them, and thereby create new varieties, which, while maintaining a protective power on the animal in which they have been inoculated, develop only a mild form of the original disease. This is what he has accomplished for chicken cholera, for swine plague, and especially for anthrax, or splenic fever, and to-day it is by tens of thousands that we count the flocks and herds that he has saved from this deadly anthrax by his experimental vaccination. It ought to be the same for small-pox and vaccine, but we have not yet found methods of culture for developing the vaccinal virus, and it is necessary that small-pox should undergo attenuation in the organisms of certain animals, such as the horse and cow, before the resulting virus can be truly protective.

Does the vaccine virus, you may ask, contain a microbe? Undoubtedly; and Klebs considers it as absolutely identical with that of small-pox. Chauveau, moreover, showed us in 1868 that vaccinal lymph deprived of its solid corpuscles, becomes inert.*

*Gluge, in 1838, was the first to describe in vaccinal lymph certain crystals which he believed to be the essential principle of this lymph. These crystals were nothing but brilliant corpuscles, which have been since described under the name of corpuscles of Gluge. Chauveau, in 1868, pointed out this capital fact, that when we deprive vaccine matter of the corpuscular elements which it contains, the vaccinal lymph becomes inactive. To obtain this complete separation, Chauveau employed the process of diffusion, and to a stratum of virulent liquid he added, carefully and slowly, a stratum of water; intermingling took place, and

You all know the methods of vaccination, and I need not here give you any rules for this operation, nor any description of the vaccinal eruption, only reminding you that it seems to-day demonstrated that the number of vaccinations and the intensity of the vaccinal eruption have a certain part in the protection conferred, and the statistics of Oppert and of Russell seem to me in this respect to be very conclusive. But one point on which I ought to insist is the necessity of revaccination; in fact, vaccine seems to lose its protective properties in about ten years; therefore, all the governments which have made vaccination compulsory have been careful to enjoin revaccination.

Of all the dangers which have been attributed to vaccine, there is but one which deserves your serious consideration: it is the possibility of inoculating syphilis when the matter is taken from a syphilitic subject. To-day it is perfectly demonstrated, and by observations, unhappily too numerous, which amount in our country to more than 120 cases, that vaccinal syphilis exists, and that too much care cannot be taken in the choice of the subject from whom vaccine matter is obtained. This consideration has had a good deal to do with the success which has attended animal vaccine, a kind of vaccination which Lanoix and Chambon imported from Italy in 1856 to our country, and you may see in this hospital the success which has been obtained by this bovine vaccination, to-day adopted by all the countries in Europe as well as in America. For my part, I consider animal vaccine just as good as human vaccine, with this advantage, that there is certainty of exemption form the danger of syphilis.

But now that the experiments of Villemin have been strongly confirmed by the discovery of the *bacillus tuberculosis*, one may ask if in this way tuberculosis, so frequent in kine, may not be transmissible by vaccine. So far we have had no proof of this fact, but it deserves to be discussed, and Warlomont, in his interesting work on vaccine, has devoted to the refutation of the possibility of inoculation of tuberculosis by animal vaccine, an interesting chapter, to which I refer you. Whether it comes from the infant or from the animal, vaccine matter may be preserved a considerable time. At our Academy of Medicine, where the humanized lymph alone is used, the vaccine is kept only incapillary and glass tubes. In countries where they make exclusive use of animal vaccine, which is more difficult of preservation, they employ the scabs, or dried pustules reduced to powder or paste, and my pupil, Dr. Crando, of Nice, has shown the activity and the easy preservation of these vaccinal preparations.

Vaccine constitutes, with hygienic means of isolation, the only prophylactic treatment of variola; all others are illusory, and even dangerous. The hygienic measures comprise an aggregate of means for the isolation of the patient—means especially necessary in our hospitals—and you see to-day the good effects of this isolation, thanks to the measures, incomplete it is true, which have been adopted by the Board of Public Charities and the Prefecture of Police, which have put at our disposal certain isolated barracks and special vehicles for the transportation of small-pox patients.

We know at the present day almost with certainty the mode in which the contagion of small-pox is received into the system, namely, by the respiratory passages, in most cases, if we can rely on the experiments of Zueger on animals. Brouardel had in fact previously shown us by examination of the air of small-pox wards, that this atmosphere was charged with numerous particles coming from desiccated variola pustules, and it is by the penetration of these particles into the respiratory passages that small-pox virus enters the blood. From these experiments, too, we may conclude that at the period of desiccation of the eruption we should redouble our efforts to prevent the dissemination of contagion. Unhappily, this is the period of the disease when the medical attendant finds himself most important, and till persons convalescent from small-pox shall be restrained by stringent legal enactments, we shall find it hard to prevent them from going abroad and carrying with them wherever they go, the contagious elements of the disease.

As for the treatment proper of small-pox I shall have little to say; during the invasion we can in some cases favor determination of blood towards the skin by means of sudorifics, and especially the spirits of mindererus. You will often have to combat the pain in the back, and the obstinate constipation, symptoms of the first stage. You can generally remedy the first by means of certain liniments (such as chloroform and spirits of turpentine of each 1 part, and liquid opodeldoc 8 parts); the constipation can generally be overcome by mild purgatives. Next comes the eruption; if it is discrete, if moreover the subject has been vaccinated, no active interference will be required; not so if the eruption be confluent, and all your efforts will be required, especially if your patient be a young female, to prevent the eruption from following its course, and causing disfiguring cicatrices. For this end various means have been proposed. Mercurial preparations, and in particular alum ointment and the emplastrum de y. vigo have the curious property of preventing the development of these pustules, and this abortive power has been utilized by covering the face of the patient with masks made of these preparations. Aran and Delioux, of Savignac, have proposed to substitute for these ointments a collodion made with corrosive sublimate; unfortunately, this collodion, however elastic it may be supposed to be, yields readily to the distension of the skin attending the eruption, and notwithstanding the real advantages of this method, I have had to abandon it and return to the primtive process of Zimmerman.

(*To be continued.*)

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all the soluble parts of the serum were diffused through the water; the upper part of this mixture, when animals were inoculated with it, did not reproduce the vaccine. According to Hiller, the contagious principle of vaccine resides in certain pale opaque granules, some soluble in solution of potassa, others insoluble. Klebs believes that he has found the microbe vaccine; he claims that it is identical with that of small-pox; it has for dimensions $\frac{6}{10000}$ of a millimetre; it presents itself often in groups of four, whence the name of *micrococcus quadrigeminus*. Gluge, *Anatom. Microscop.*, Winden, 1838. Chauveau, *Nature des Virus*, etc., (*Acad. des Sc.*, February, 1868). Klebbs, *Arch. für Experim. Path.*, t. x. p. 2 and 3. Hiller, *Untersuchungen über das Contagium der Kuhpocken* (*Centrabl.*, No. 20 et 21, 1876).

Medical Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting November 6, 1884. The president, R. A. Cleemann, M. D., in the chair.

Removal of Uterine Appendages for Menstrual Epilepsy—Recovery.

Dr. E. E. Montgomery exhibited the specimens and read the history of the case. Sarah H. æt. 17 yrs. was admitted to the Philadelphia Hospital, April, '84. She suffered from an attack of inflammatory rheumatism in childhood and began to have epileptic seizures in her thirteenth year; they were slight at first, but have recurred every month increasing in number and violence so that at present she is unconscious from ten days to two weeks out of each month. There has only once been a trace of menstrual discharge, and that for a single day only. There is no history of an chronic disease in the family, brothers and sisters are healthy. The patient was pale, flabby, anemic, poorly developed, and extremely nervous. The external genitals were but slightly developed, the uterus small, and no special tenderness over the pelvis. Iron, tonics and generous diet were given; the bromides were not well borne. Owing to her youth and the fact that she had not yet mensturated, it was deemed best to undertake to establish the menstural function and exhaust the anti-spasmodies before resorting to operative interference. The failure of all remedial measures was complete, and on September 13th the operation was performed; both ovaries and tubes were removed. No antiseptic was used about the wound. All the water used had been well boiled. Absorbent cotton was placed over the wound, which had been closed with silk sutures. The operation occupied thirty-five minutes. The recovery was uninterrupted until the night of the 26th of September, when she had four epileptic seizures. There were recurrences of slighter attacks during the next three nights, but they were shorter and during the intervals she was perfectly conscious. During the first four days of October, spells of staring with momentary unconsciousness occurred, becoming less frequent and lighter. A well marked convulsion on the night of Oct. 14th was followed by from one to four convulsions daily until the 29th. But they have not been so severe as before the operation.

Removal of the Parovarian Cyst—Recovery.

Dr. E. E. Montgomery presented the specimens, and related the history as follows: Miss A., æt. 30 years, native of England, married, never pregnant, has suffered from an enlargement of the abdomen for seven years. As it was first noticed a few months after her marriage, she supposed herself pregnant. Her menses have never been interrupted, now occur every three weeks, are very slight, and have never been excessive. She suffers from severe pain the week before menstruation, over the lower portion of the abdomen and through the hips. She suffers at other times from pain in the feet and legs, and from a sensation of weight. The tumor has been tapped some six times. The fluid was always of a pale straw color. The largest quantity removed at any one time was 40 pounds. Previous to its removal, her weight was 102 pounds. The last tapping was on June 27, 1884. She has had four attacks of peritonitis.

When first seen, last July, two weeks after the last tapping, the abdomen was swollen and tender to pressure; fluctuation was distinct. Since that time the abdomen has increased considerably in size, presenting a prominent tumor distending the whole abdomen, nearly symmetrical, but projecting slightly to the right side; circumference at umbilicus 32″; distance from symphysis to umbilicus 7″; to ensiform 13″; fluctuation distinct over the whole tumor; coughing projects the whole mass forward and downward. Her general condition is good. She is quite active.

Diagnosis.—A par-ovarian cyst.

Plan of Operation.—Exploratory incision; remove the tumor if possible, but if the adhesions were too great to permit that, then to open the sac, stitch it to the integument, and introduce a drainage-tube, and thus secure obliteration of the sac.

Operation.—October 9. Abdominal wound 4″; adhesions universal, but generally broken up without difficulty; no ligatures were needed. The intestines were not seen, being concealed by old inflammatory deposits. The right ovary was enlarged and was also removed. The wound was closed with seven sutures, and a glass drainage-tube introduced. Salicylated cotton in a thick layer was placed over the wound. Suppositories of morphia were used to control pain, which continued to a greater or less extent for two weeks, arising partly from inflammatory conditions, and partly from collections of gas in the intestines. The abdominal wound discharged freely—three ounces the first day. The drainage-tube was removed on the 13th, four days after the operation, but the discharge of bloody serum, pus, and flaky lymph continued for full two weeks later, when the wound closed entirely, and the patient was discharged.

Dr. B. F. Baer presented the specimens, and read the following report of a case of

Placental Polypus which Simulated Malignant Disease of the Uterus.

The patient was thirty-five years of age, married, and had two children at full term, the last twelve years ago. She has had several abortions since, but otherwise she has enjoyed good health Her mother died at the age of thirty-eight, of cancer of the uterus. In the early months of this year our patient first noticed that her catamenia were becoming too frequent, and were attended with expulsive pains and a fetid watery discharge in the intervals. The blood loss increased in quantity, and she soon began to show signs of failing health in pallor and loss of flesh. She would not permit a physical exploration until the latter part of July, when she had a violent flooding, with great pain.

Examination now revealed to Dr. R. Armstrong, of Lock Haven, Pa., whose patient she was, a healthy condition of the cervix and a normal os, but the body of the uterus was enlarged to more than double its natural dimensions; it seemed to be symmetrical and rather softer than usual.

The hemorrhage was controlled by ergot and rest. Although the grumous fetid discharge and the uterine tenesmus continued, she did not have another severe attack of metrorrhagia, probably because of her exsanguine condition, and the fact that she was suffering from septic absorption. Her temperature rising as high as 104° in the afternoon, she had distinct rigors. Her abdomen was tympanitic, and very tender to the touch. The physical condition of the uterus led the doctor to introduce two tents into the cervical canal on September 23. They were allowed to remain twenty-four hours, although their presence increased the violence of the symptoms. When the tents were removed, a rather soft, friable mass could be felt presenting at the internal os. This led to a fear that the disease might prove to be malignant. A severe colliquative diarrhœa now set in, and the patient's strength became so much reduced that nothing could be done except to administer remedies to check the diarrhœa and prevent collapse.

On the morning of the 25th, through the kindness of Dr. Armstrong, I saw the patient; temperature 103°, pulse rapid and weak. Stomach irritable, rejecting everything taken; bowels still quite reiaxed. Her face presented the ashy hue of malignant disease. The outlook was not favorable for an operation which would necessitate the dilatation of the cervix sufficiently to remove the diseased tissue, which evidently occupied the uterine cavity, but it was the only course to pursue. Ether was administered. The uterus was found retroverted and adherent to the floor of Douglas's cul de sac. The cervix was rigid, but slightly patulous. In view of the existing peritonitis, we concluded that it was best that I should endeavor to remove the contents of the uterus without a further attempt at dilatation, fearing rupture of adhesions and increased inflammatory action. I passed the wire loop of the écraseur through the os, and by careful manipulation luckily succeeded in guiding it over the tumor, and up to its attachment. Drawing upon the wire, it closed around the pedicle and severed it. The tumor was seized with a volsella forceps, and delivered. The index finger could now be passed into the cavity of the uterus. The pedicle was situated on the posterior wall near the fundus. The tissues at that point were soft and friable, but the remainder of the surface of the uterine cavity appeared to be free from disease. The stump was cauterized with nitric acid, and a two-grain opium suppository placed in the rectum. Convalescence was rapid and satisfactory.

On section and close examination, the specimen very much resembles placental tissue, and the microscope shows typical placental villi in its structure. It is the *placental polypus* described by C. Braun, in 1851, and somewhat resembles the *fibrinous polypus* of Kiwisch, who thought that these polypi might arise from long persistent hemorrhage, a kind of apoplexy of the womb; a large coagulum forming, the upper part consisting mostly of fibrine and adhering by a stalk to the uterine wall, whilst the lower consists of red, soft coagulum, having a coat of firm fibrin. Scanzoni does noes not admit this view. He contends that these are cases of abortion, and would therefore fall under the class of placental polypi (*Barnes*). My own experience argues with that of Scanzoni. These polypi cause profuse metrorrhagia, and and sometimes, as in this case, blood poisoning.

This case furnishes another strong argument in favor of the entire removal of the decidua or placenta after abortion. Who can tell how many lives are lost, or in how many cases the health is undermined by a neglect of this procedure? Death would inevitably have occurred in this case if the uterus had not been emptied. The patient may suffer for months or years, as a result of neglect. In this instance the fault was in the patient, for she had been properly advised by her physician. It is true that many cases escape without serious injury, but that does not prove that the principle and practice of immediate removal is not always the safe one; for here is a case where a neglected abortion had apparently passed off safely, but it almost destroyed the patient's life a long time afterward.

Malignant disease was properly suspected from the rapid development of such grave symptoms, from the general cachectic appearance of the patient, and from the sensation conveyed to the finger when touching the growth *in situ*. But when it was found that it had a limited point of attachment, and that the uterine cavity was healthy at all other points, this hypothesis was weakened; and when more careful examination of the specimen and investigation with the microscope showed it to contain placental villi, its benign character was assured.

Dr. Montgomery remarked that in cases in which partial dilatation of the uterine canal had been accomplished before the patient presented, the best instrument to continue the dilatation is the mechanical urethral dilator of Dr. A. H. Smith.

Hair-pin in the Uterus.

Dr. B. F. Baer exhibited a hair-pin removed from the uterine cavity of a patient sent to him by Dr. Pancoast, of Camden, N. J. The woman, believing herself to be pregnant, had tried to produce an abortion by inserting the pin by grasping the points and inserting the blunt end. The patient had obtained a view of the parts in a mirror placed upon the floor. The presence of the pin was readily detected by the uterine sound. He at first thought of dilating with tents, but the patient being greatly alarmed and very importunate, he used the steel dilator. One point of the pin became imbedded, in its descent, in the tissues of the cervix, and required dissection to release it.

Dr. Wharton Sinkler exhibited a hair-pin removed from the vagina of a patient who had tried to introduce it into the uterus to produce abortion. She had failed in her purpose, and had also failed to remove it from the vagina. The doctor found the points of the pin widely separated, presenting downward, and hooked into the walls of the vagina; by bringing the points close together, the pin was removed without difficulty. It had been in the vagina for some time.

Dr. Montgomery stated that, while a student, he had seen a hair-pin removed from a vagina. It was thickly encrusted with a calcareous deposit.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, November 13, 1884. The President, Dr. Shakespeare, in the chair.

Some Studies on the Micrococcus of the Pleuro-Pneumonia of Cattle.

By Thos. D. Dunn, M. D.

On September 25, 1883, through the kindness of Dr. Bridge, Assistant State Veterinary Surgeon, and Mr. Thomas Edge, Commissioner of Agriculture of Pennsylvania, I was invited to be present at an autopsy on some cows suffering from pleuro-pneumonia, their condition being such that recovery was deemed impossible. Mr. Edge ordered them killed.

As a description of the macroscopic and microscopic condition of the lungs was read before this Society a year ago, and as it would have no special bearing on the bacterian nature of the disease, a detailed account will be omitted.

Suffice it to say, the lung is completely solidified, the air-cells filled with effused blood, serum, and lymph, which usually extends into the small bronchial tubes. Portions of the consolidated lung and blood from the heart were placed in a bottle which had been thoroughly cleansed, and the bottle closed with a ground-glass stopper. These were examined microscopically by Dr. Geo. Martin and myself, and were found swarming with germs—*micrococci*. These little bodies, although seen distinctly with a power of 670 diameters, are best studied with a power of 1000. They are colorless, globular or oval in form, outline regular, and refractive power notable. The Brownian movement is marked; this is a tremulous motion not peculiar to *micrococci*. It is common to inorganic particles as well as minute vegetable and animal organisms. They do not seem to move in a manifest manner, independent of the currents of liquid in which they exist. They measure from a third to a half micro-millimetre, or from $\frac{1}{8000}$ to $\frac{1}{4000}$ inch in diameter. They are not dissolved by ether, alkalies or acids, and take the staining of aniline colors slowly. I have, however, succeeded in staining him by first treating with aqua ammonia, then with staining fluid and afterwards washing with a weak solution of nitric acid. They have recently been more satisfactorily stained by a two per cent. alcoholic solution of methyl violet. They multiply in nitrogenous culture fluids at ordinary temperatures by millions. They are generally separate, though sometimes united in pairs, and little cellular colonies forming distinct zoöglœa. From the fact of their being occasionally seen in pairs, it is reasonable to suppose that multiplication is taking place. They resist putrefaction, for the cultivation tubes started September 26th swarmed with them two months later. When the nitrogenous material is exhausted, their growth is stopped, and the remain in a latent state, as it were, until additional food is given, or they are transplanted into fresh fluids. After the tubes stand a few weeks, the membrane formed on the top sinks to the bottom, and the liquid above clears. That they are not dead, but only in a state of repose, is evident from the fact that they multiply anew when inoculations are made from them, but less rapidly than inoculations from more recent cultures.

Dr. J. J. Woodward, U. S. A., presented at a meeting of this society, in 1861, a pleuro-pneumonic lung, and mentioned certain "spores of fungi" found in both the healthy and diseased lung, but he did not describe them. These "spores of fungi" are probably the *micrococci* under consideration. Aside from this, I have not found any record of them, but unfortunately I have not had access to the literature pertaining to this subject.

The following culture experiments were made with the serum virus taken from the diseased lung. The culture fluid consisted of extract of fresh beef, made by chopping it fine and pouring over it hot water. After maceration the juice was expressed and the extract boiled for several minutes. It was then filtered, and again boiled, to thoroughly destroy all germs. It was then placed in culture-tubes, which had been washed in a solution of corrosive sublimate, and afterwards boiled. The tubes were closed by absorbent cotton, which was sterilized with corrosive sublimate and the application of dry heat. After the culture fluid in the tubes had cooled, a minute quantity of the serum was introduced by a small knife whose blade had been heated in a spirit lamp. The tubes were then placed where the temperature ranged from 90° to 120° Fahrenheit. On examination of these tubes on the 28th, the liquid was found turbid, a thin membrane formed over the surface, and there was a slight deposit. Under the microscope, thousands of *micrococci* were seen. From this cultivation a second was made, and after standing 48 hours the surface membrane, cloudiness of fluid, and slight deposit appeared, and myriads of *micrococci* were found. From this a third generation was started, in which appeared a few *bacilli*—the first discovered.

They are very active, colorless bodies, measuring from three to five micro-millimeters in their long diameters, and from one-third to one-half in their short. Their movements are at times rapid; again they are in a state of repose. Sometimes one will remain a long time motionless, then suddenly dart across the field of the microscope, setting many of its fellows in motion, who seem to catch the spirit of the active *bacillus*. At one time they advance with the rapidity of an arrow, then retreat or describe circular lines. It was noticed in those cultivations in which the *bacilli* were found the surface membrane was thicker and more tenacious. In cultivations conducted at a lower temperature the development of *micrococci* was not so rapid. Fearing that some atmospheric germs might have been introduced with the culture, other cultivations were begun from the second generation, in which no *bacilli* were found. The culture fluid was boiled at intervals, to kill germs that might develop from spores not destroyed by previous boilings, and as a further test non-inoculated tubes were placed by their side. In forty-eight hours the former were swarming with both bacilli and micrococci, while the non-inoculated ones remained clear for ten days. These subsequently developed germs after inoculation.

A second series of observations was commenced with fresh virus obtained October 4. The first and second cultures were pure, but in the third *bacilli* appeared, and in the fourth they had greatly increased. It is difficult to explain the relation these forms bear to each other, as to whether the *bacilli* are organisms developed from the *micrococci*—the latter being in a sporal stage

of their growth—our investigations will not justify a positive answer. Koch has determined that the *bacilli* of anthrax develop veritable spores, and they in turn develop *bacilli*. Several other observers held this view, and according to the investigations of Koch, Cohn, and Pasteur upon the development of bacteria, it is probable that the spores of *bacilli* and other bacteria are identical with *micrococci* in form, aspect, and behavior toward chemicals. In those diseases in which certain *bacilli* and *micrococci* are found to be the virus, it is impossible to distinguish them from harmless ones by their microscopical appearance; that is, a specific disease germ can only be determined by its effects on living organisms. The *micrococcus* of pleuro-pneumonia, so far as present observations go, is identical with that of diphtheria, chicken-cholera, and the recently-discovered *micrococcus* of scarlet fever. It is further found that this germ of virulent matter rendered harmless by attenuation does not differ microscopically from the unattenuated, which destroys life. I have made no inoculations on animals with the micrococcus of pleuro-pneumonia, but a few cows have been inoculated by others without any reference to a special virus or cultivation of the germ, and the disease was transmitted. However, several experiments have been made in view of destroying the germ, the results of which I will briefly state. A tube containing cultivated *micrococci* was boiled, and from it a second was inoculated. In 36 hours the tube contained many *micrococci* showing that the germ is not destroyed at 212°. A culture fluid to which had been added ten per cent. of alcohol was then inoculated. No *micrococci* had developed one week later. One and a half per cent. of benzoic acid with borax to dissolve was then added to a culture fluid: neither *micrococci* nor *bacilli* had appeared six weeks afterwards. Another culture was started, to which was added corrosive sublimate in the proportion of one-half grain to the ounce. In three weeks there were no traces of germ life. To test the influence of cold on these organisms, a tube containing cultivated germs was frozen, and from this sterilized liquids were inoculated. In forty-eight hours they contained myriads of *micrococci* and a few bacilli. A portion of diseased lung was frozen, and inoculations from this grew in about the same time. It was afterwards found that the cotton, which had been sterilized by heat and corrosive sublimate had been inadvertently exposed to old cultivations and decomposing organic substances, and it is possible that bacteria were introduced by it. When I repeated these experiments, it was found that while inoculations from non-frozen virus develop *micrococci* in a few hours, it requires several days for sowings from frozen specimens to grow in the same culture fluid and under the same conditions of temperature. Whether they were not exposed to cold long enough to destroy the germs, or the influence is only sufficient to render them inactive, further investigations will be required to determine. It is my impression that cold will check the spread of this contagion, but not destroy it altogether, and that when the disease once attacks an animal cold will have no influence upon it, though it may prevent the spread of the infection to others in the same herd. The power of medicinal agents to control the disease seems to be very feeble. It would appear that corrosive sublimate, alcohol, and benzoic acid arrest the growth of these germs, but whether doses sufficient to destroy them can be administered without endangering life our veterinary surgeons must determine.

Dr. Shakespeare said that he had read of two attempts within the past year or two, to isolate the micrococcus of this disease. Bruylants and Ferriers united in an attempt of this kind, and have reported their observations in the *Bull. de l'Academie Belgique*, 1880, to the effect that they found a micrococcus constant in the pleuritic and alveolar exudate. More recently, the report of Poels and Nolen, of Rotterdam, has appeared, in which they describe the isolation and culture of many generations of micrococci.

Moreover, they have compared them with those of human pneumonia, claiming their identity morphologically, and with regard to their mode of growth; and a further identity as to the results of inoculation, their experiments showing that pleuro-pneumonia in cattle has been produced by inoculation of the cultures of micrococci from human croupous-pneumonia as well as by inoculation of cultures from the pleuro-pneumonia of cattle. The latter report is published in the *Centralb. f. d. Med. Wiss.*, No. 9, 1884.

Dr. Formad said that this micro-organism had also been seen and described by Veterinary Surgeon Lyman, who had presented a very elaborate report to the Department of Agriculture. Dr. Quile, both a medical man and a veterinary surgeon, also had worked in pleuro-pneumonia for two years in the Pathological Laboratory of the University of Pennsylvania, always finding the micrococcus present, and in pure cultures kept up for many generations, he had not observed any other bacteria. He had inoculated two calves with large quantities of the culture, and had failed; whence he had concluded that the micrococcus was not the cause of the disease. He remarked as fact in favor of the micrococcus being the cause of the disease, that these organisms are chiefly found in the lymph, and that in pleuro-pneumonia enormous lymph-spaces are developed in the lungs, which are filled with a grumous liquid containing micrococci in large numbers, while the contents of the alveoli contain very few micrococci, but swarm with other bacteria.

Dr. Dunn, in his concluding remarks, said that one point of interest had been omitted in his paper, which was, that the cattle from whom the specimens had been obtained had been first knocked down, then bled to death, and buried *superficially* in a field, through which flowed a stream from which neighboring herds were watered. In a few weeks the disease appeared in these cattle also. As to the literature of the subject, he had not access to sufficient to familiarize himself with any investigations made by others. Some experiments with reference to inoculation have been successfully made in France and England. The lymph was introduced into the body and tail, and was found to protect the animal from the disease. When the virus was inserted into the tail with proper precautions, the mortality from the operation was less, being from one to two per cent. It was also found that when the tail became greatly inflamed, it could be removed to

limit the inflammation, and still afford protection to the animal. Inoculated animals did not communicate the disease.

[A specimen of tumor of the bladder was presented by Dr. J. H. Musser, the account of which has been, by his desire, held for future publication.]

(*To be continued.*)

EDITORIAL DEPARTMENT.

PERISCOPE.

Mitral Stenosis and Insufficiency.

The following interesting case is reported by Dr. T. C. Railton in the *Lancet*, November 15, 1884. He says:

The following notes of a case of mitral disease may be useful as showing how very important symptoms may be sometimes masked by other conditions, and the diagnosis thereby rendered difficult. They show as well, in a tolerably typical manner, the picture of the heart's gradual restoration from asystolism to comparative well-being, with the disappearance concurrently of all the symptoms depending upon the former state.

T. W——, aged thirty-two years, book-keeper, came under treatment on March 10. His father died from heart disease and bronchitis at fifty-four years of age, but there was no further history of rheumatism or heart disease in the family. Although always troubling himself a good deal about business and working hard, the patient had considered himself to be a healthy man until quite recently, with the exception of three attacks of bronchitis which he had suffered from during the past winters, the cough, however, disappearing when the warm weather came. So far as he knew, he had not been under the care of a medical man; he had never suffered from rheumatism, from shortness of breath, nor had he lost flesh. During the last month he had taken cold and had a cough, with occasional hæmoptysis and shortness of breath; but he continued at his business until two days before coming under treatment, when his increasing disorder compelled him to remain in bed. When first seen, he was found to be suffering very considerably from dyspnœa, which was aggravated by the slightest exertion. He had to be propped up in bed, and was much distressed by a constant hacking cough, bringing up a sputum tinged with blood. He had no signs of congestion in the face, being quite pale. He was perspiring freely, and there was a sour smell present, like that of acute rheumatism. He had, however, no elevation of temperature and no joint affection. There was no œdema of the extremities nor any perceptible ascites, but the abdomen was considerably swollen over the region of the liver. His fingers and toes were very decidedly clubbed at their ends. On examining the chest, it was found to be well-developed, with both sides equal; the percussion note was almost tympanitic, except at the base of the right lung posteriorly, where there was comparative dullness. A few rales were to be heard scattered over the chest, and bronchial breathing in that part where the dullness existed. The superficial cardiac dullness was found to be perfectly normal; the apex beat was diffused and weak, but situated somewhere about the nipple-line in the fifth interspace, at which spot a faint presystolic thrill could just be perceived. On auscultation at the apex the first sound was remarkably short and flapping, and was not followed by any second. There was an exceedingly short and slight roughness to be heard immediately preceding the first sound, which might almost have escaped attention had not the presystolic thrill pointed out its nature. At the base there was a reduplication of the second sound; in the aortic area it was weak, in the pulmonary area it was but very little stronger. There was no tricuspid disease discoverable. The liver was found to be uniformly enlarged, but there was no pulsation or any great degree of tenderness. The dullness in the right nipple-line was six inches and a half in depth. The spleen was apparently somewhat enlarged. The urine was scanty and loaded with urates; it contained a considerable quantity of albumen. The treatment adopted was to keep the patient perfectly quiet, to supply him with a nourishing diet, more particularly Benger's peptonized beef jelly, and to administer half an ounce of the Pharmacopœial infusion of digitalis every three hours.

I need not occupy space by detailing the daily progress of the case; it will be sufficient to mention briefly the changes in the various organs implicated. The dyspnœa began to abate in the course of twenty-four hours after beginning the digitalis, and had entirely left him in three days. The sputum tinged with blood disappeared at the same time. The sweating was noted as much less by the fourth day, at which time also the liver dulness was found to be diminished. On the sixth day the size of the liver had become quite normal. At the same time that portion of the right lung which had been compressed regained its normal resonance and breath sounds. The urine was clear and free from albumen on the third day. As regards the heart, although its action continued to be irregular during the whole attack, and in fact has remained so since, the pulse became stronger in the course of two days, and with the improvement in the nutrition of the cardiac walls the sounds underwent the following modifications: On the third day the murmur at the apex, from having been genuinely presystolic in rhythm, was noted to have changed so as to occupy the whole of the ventricular pause, the second sound being still absent. It was very rough in character. The next day, the rhythm and everything else remaining the same, the roughness had changed to a loud rumble. On the fifth day the aortic second sound was to be heard at the apex for the first time, and was immediately followed by the rumbling murmur,

which, however, no longer extended quite to the beginning of the first sound, thus becoming post-diastolic in rhythm. The second sound at the aortic cartilage was noticed to be louder than before. On the sixth day a faint systolic murmur accompanying the first sound was heard just at the apex, not traceable to the axilla or back, the post-diastolic murmur remaining as before. In this condition the heart has remained up to the present time, when the patient has been compelled to resume his occupation. All the sounds are stronger; at the base the aortic sound is normal, the pulmonary sound accentuated.

Remarks.—The absence of abnormal cardiac dullness might have rendered the diagnosis obscure, if the other symptoms had not pointed so strongly to cardiac insufficiency. No doubt the enlargement of the right ventricle and left auricle is masked by an emphysematous condition of the lungs, the result of the previous attacks of bronchitis. The insidious advent of the disease, without any previous history of rheumatism, and its long existence (as shown by the clubbed ends of the fingers and toes, and by the extent of the mischief in the heart itself), without having attracted attention, hardly require comment, both of these circumstances being common in this form of valvular mischief. It is worth noting, however, that after a long period of immunity the rupture of compensation was brought about with the greatest rapidity by an attack of cold. I would draw attention to the alteration in rhythm of the obstuctive murmur under the influence of rest and digitalis. At first a true presystolic murmur, it changed so as to occupy both diastolic and presystolic periods, and later the diastolic period only. These changes were coincident with an increase in the strength of the walls of the left ventricle, as shown by the improvement of the aortic second sound, its conduction down to the apex, and by the appearance of the systolic mitral murmur. It is quite reasonable to suppose that by strengthening the ventricular walls their diastolic power will be increased in the same ratio as their systolic power; and this permits us to make use of Dr. Broadbent's hypothesis that the post-diastolic rumble may be produced by the blood being strongly drawn from the left auricle, through the narrow mitral opening, during the active dilatation of the left ventricle. This will account for the production of the diastolic or post-diastolic murmur, but will not explain the absence of the presystolic portion of the murmur at a time when other signs showed the heart to be acting strongly. It would seem that the increased power of the left ventricle to fill itself during the diastolic period resulted in a condition modifying the vibrations of the mitral valve during the presystolic period, and so rendering them inaudible. A question of great interest in mitral stenosis is the almost characteristic loud and short first sound. It has been aptly compared with the second sound in quality, and appears to owe its shortness, like the latter, to the fact that it consists of a vibration of the valves unaccompanied by muscular bruit. The absence of tone in the walls of the left ventricle particularly is to be explained by the small amount of blood which has habitually reached it in a long-standing case of mitral stenosis, like the one we are considering, and may thus account for the imperfect contraction of the muscle. As regards the loudness of the sound, sometimes so extreme that one cannot hear it without a stethoscope eight or ten inches from the chest, it is difficult to explain unless we accept Dr. Broadbent's suggestion that, "it is due to imperfect distension of the ventricular cavity, and the consequent absence of resistance at the beginning of the systole."

The Comma Bacillus.

The *Lancet*, November 29, 1884, contains the following:

We have received the following "conclusions" arrived at by Dr. E. Van Ermengen, after some researches upon the comma bacillus of Asiatic cholera, communicated to the Microscopical Society of Belgium on October 26th. They will be seen to traverse most of the points in dispute, and to accord with Dr. Koch's results.

1. In the intestinal fluids of patients attacked with cholera (eight autopsies and thirty-four examinations of stools) there exists an organism identical with the comma bacillus discovered by Koch.

2. Its curved shape, its **S**-shaped, and chain-like groups, due to juxtaposition, and its occasional formation of slightly wavy filaments, give an assemblage of microscopical characters which render it easily recognized from pathogenic micro-organisms hitherto known.

3. It is more or less abundant in the choleraic products according to the period of the disease and the time of examination. In two rapidly fatal (*foudroyants*) cases it occurred in the intestinal contents almost in a pure culture. In one case of short duration, where the patient had succumbed with very marked algide phenomena, there were very few comma bacilli to be found in the intestinal fluid. They disappear from the darker stools of the reaction stage.

4. It would have been very important to search for them in the dejecta of patients attacked with so-called premonitory diarrhœa, but our investigations were not brought to bear on this point.

5. In the single case of algide cholera, where microscopic examination failed to detect numerous comma bacilli, a culture of a small quantity of the intestinal contents on soiled linen in a damp chamber yielded an incalculable number of characteristic comma bacilli in twenty-four hours.

6. Microscopical examination of dejecta can suffice to establish the diagnosis of Asiatic cholera when preparations containing the different forms of comma bacilli in excess are obtained.

7. Bacterioscopic research supplies the deficiencies of microscopical examination in cases where the comma bacilli are scanty, and are even not found with certainty in the preparations. The characteristic aspect of their colonies, studied under a low power (150 diam.), renders them easy of recognition. The practical value of these culture processes on the glass slide in nutrient gelatine (10 per cent.) is well shown by our experiments. Mixtures of a very small quantity of the cultivation product with a considerable amount of putrefied blood, stagnant urine, fæcal matter, hay infusion, etc., yield preparations where the typical colonies of comma bacilli have

been detected with readiness in the midst of most varied vegetation.

8. The study of the morphological characters of the comma bacilli at different stages of development, cultivated in various media, chiefly in chicken broth and fluid serum, shows that they should be classed with true spirilla.

9. The most varying conditions of temperature and medium have not resulted in the discovery of a stage of spore formation; and their want of resistance to drying proves that they do not produce permanent germs.

10. Gelatine cultures cease to be inoculable six or seven weeks after having been sown. Agar-agar cultures still contain living organisms after eight to nine weeks.

11. The temperature most favorable to their development seems to be that of from 25° to 37° C. Below 16° (between 8° and 15°) they are still developed, but with difficulty.

12. Their phenomena of growth and multiplication are extremely active. In from two to three days they completely liquefy many cubic centimetres of coagulated serum.

13. The curved bacilli of the saliva, discovered by Miller (March, 1884), and believed by Dr. Lewis to be identical with the choleraic comma bacilli, do not develop in gelatine, 10 per cent.

14. The cultures of the organisms, to which MM. Finkler and Prior attribute the production of cholera nostras, are impure. That which I examined contains two kinds of bacilli. Their mode of vegetation and the appearance of their colonies in gelatine differ from those of the comma bacilli of Asiatic cholera. One of them gives to the cultivating medium a very characteristic greenish-blue fluorescence, which is wanting in the pure cultures of the comma bacilli.

15. Attempts at inoculation of the cultivation products have so far yielded very encouraging results in some species of animals, such as dogs, rabbits, and guinea-pigs. Three out of four guinea-pigs died in two or three days after the injection into the duodenum of one drop of a culture (fourth day) of the comma bacilli in liquid serum, after the method pursued by MM. Nicati and Rietsch, of Marseilles. The cadaveric appearances were those of cholera, and the intestinal fluids contained large numbers of comma bacilli.

16. The pathogenic action of these products of cultivation is very likely due to a zymosis, to an unstable albuminoid compound. Corpuscles of fresh human blood placed on Ranvier's heated platinum, and brought into contact with a drop of a serum-culture, present characteristic changes wholly comparable with those described by MM. Nicati and Rietsch in their observations on the blood of choleraic cases.

17. The discovery of the comma bacillus is of the greatest importance in the diagnosis of choleriform attacks of doubtful nature which occur at the commencement of epidemics, and for the resort to more effective prophylactic measures which this early diagnosis allows.

18. The employment of bacterioscopic methods in the diagnosis of cholera does not offer any great difficulty in practice, and it would be very desirable, in view of the serious threats of an invasion of Belgium by cholera, that a sufficient number of physicians employed in the sanitary services should be initiated therein with the least possible delay.

Carcinoma of the Stomach in a Child.

In the Pathological Society of London, Nov. 18, 1884, Dr. Norman Moore showed sections of the stomach taken from a girl, aged 13 years, who was brought to the hospital with extreme anæmia and slight anasarca of the face, hands, and legs. Her heart's action was very feeble, and she had a loud systolic murmur, audible at the left base. Her pulse was of very unequal beat, and a systolic thrill was to be felt over the whole cardiac area. She had no albuminuria. Besides her anæmia, her chief symptoms were repeated attacks of cardiac distress. She never vomited blood, but two days before her death, complained of pain in the abdomen, and was slightly sick once or twice. An enlargement of her spleen was felt. She died five weeks after admission.

Post-mortem—A new growth, of which sections were shown, was found at the cardiac end of the stomach, close to the œsophagus. The mass was about three inches across. Its periphery arose from the mucous membrane, and was of the same color, but its central parts were ragged, dark colored, and very tense. On section it was red, with paler stripes. The outer part of the growth was adherent to the liver, but did not penetrate it. There was a little recent peritonitis apparently due to a slight tear at the periphery of the growth. No glands and no other organs were infiltrated. There was a very old, and perhaps congenital dislocation of the right hip joint. The heart was greatly dilated. It contained several adherent, softened, ante-mortem clots, and there was an adherent thrombus in the left jugular vein. The microscopical characters of the growth were those of a carcinoma with somewhat wide trabeculæ, with extensive mucoid degeneration of the cell contents, but no degeneration of the trabeculæ, and with hemorrhages into several parts of the growth. Three distinct stages were visible in the growth. In the least degenerate, numerous cells of an epithelial type were collected in large alveoli. In another, advanced mucoid changes were observable in the epithelial cells, and in some cells the nuclei had disappeared. In the most degenerate parts, almost all the nuclei had disappeared, leaving a mass of mucoid material intersected by traces of the cell boundaries. In all three parts the fibrous trabeculæ of the carcinoma remained unaltered. The early age of the patient was a remarkable feature of the case: it was one of the earliest, if not the very earliest example of cancer of the stomach (with microscopical determination) hitherto recorded. The cancerous mass was less dense than such new growths in the gastric wall usually were, but resembled many such cases in the absence of secondary deposits. The child's paternal grandmother died of carcinoma of the descending colon at the age of 53, in 1878, and was examined post-mortem by Dr. E. D. Wallis, of Leiston, Suffolk. The growth was not examined microscopically, but there could be little doubt that it was a true carcinoma, and his case might be regarded as an example of the law of heredity that peculiarities tended to

appear at an earlier age in the progeny than that at which they occurred in the ancestor.

Rupture of the Heart.

Before the Glasgow Pathological and Clinical Society (Oct. 14, 1884), Dr. J. Lindsay Stevens exhibited three specimens of spontaneous rupture of the left ventricle of the heart.

1. The first specimen was obtained from the body of a man who had been treated in the cutaneous wards of the Western Infirmary for a somewhat generalized eczema. There had been no complaint whatever of any heart trouble, and death was sudden, while the patient was alone in the bath-room applying his ointment. The pericardium was distended with red serum, and a large clot was moulded on to the surface of the heart. A linear, ragged tear, about one inch in length, was present in the free margin of the left ventricle, about midway between the auriculo-ventricular septem and the apex. The branch of coronary artery going to this part of the heart wall was completely obstructed by an aneurism filled with clot, and both arteries were highly atheromatous. Fatty degeneration was only very slightly present; the muscular tissue in the neighborhood of the rupture was much softened. Dr. Stevens was still engaged investigating the histological changes in this case, but had not yet quite made up his mind as to their true nature.

2. The second case was sent to the Western Infirmary Museum by Dr. Yellowlees, of Gartnavel. It was obtained from a woman aged 70, who had been long insane, and who was in her usual health until the time of her death, which was sudden. There was a large irregular aperture of a generally oval shape, and an inch in long diameter, situated in the anterior wall of the left ventricle, close to the septum. The wall of the heart was somewhat bulged around it, and the edges of the aperture were everted. Fatty degeneration was distinctly present, but not extreme or sufficient of itself to cause rupture; and the left coronary artery, in addition to being atheromatous, was plugged by a thrombus and so rendered impervious.

3. This case was also furnished by Dr. Yellowlees, and was one of sudden death. On the external aspect of the left ventricle, near the base, there was a longitudinal aperture about $\frac{3}{4}$ of an inch in length. The internal opening was much smaller—only $\frac{1}{8}$ of an inch in diameter, and its edges were quite smooth. In all probability the rupture in this case had been due to aneurism of the heart-wall.

Night Blindness.

Before the Ophthalmological Society of the United Kingdom (Oct. 9, 1884), Mr. W. Adams Frost read notes of two cases of night blindness. The first was that of a painter, aged 34, who had had six attacks of night blindness, each coming on whilst he was painting white houses in the spring, the weather, except on two occasions, being very bright. Each attack lasted about a fortnight, and disappeared under treatment by rest, tonics, and use of eserine. Vision during the attacks was $\frac{2}{3}\frac{0}{0}$, and the visual field was normal. The patient was somewhat anæmic, but there was no history of any illness. He was in receipt of good wages, and had not been underfed. He had never had any symptoms of lead-poisoning, nor had he ever been out of England. The second was that of a lamplighter, aged 19, who for six weeks had been engaged in painting the lamp-posts on country roads in excessively bright weather. After three weeks' painting, he suffered severely from pain and lachrymation. Three weeks later he suddenly found that he could not see one evening, and this inability to see in a dull light continued until his visit to the hospital two weeks later. His vision then, in ordinary daylight, was normal ($\frac{2}{2}\frac{0}{0}$ and 1 J.); the visual field was normal. He presented no signs, and had had no symptoms, of lead-poisoning. He was treated with tonics and instillation of eserine, and recovered in about five weeks. A month later he had a relapse, from which he recovered in about a fortnight. Since the previous attack he had been following his ordinary occupation of lamp-lighting.

Mr. Walter H. Jessop asked Mr. Frost whether he had noticed any patches on the conjunctiva in his cases?

Mr. Frost replied in the negative, and Mr. Jessop said that, in three cases coming under his own notice lately, suffering from night blindness, patches were present in both eyes, looking like small bubbles of air, and easily scraped off. On these dry patches were numerous bacilli of uniform size; these facts had been noted by Snell and others. Two of the cases were under Mr. Nettleship's care at Moorfield's, and the third was under Mr. Jessop's care at the Paddington-Green Children's Hospital. Two were children underfed, one nearly starved, and the third case was an adult man, suffering from albuminuria. Artificial cultivations from two cases showed the same characteristics, especially as to slowness of growth. In the third case, the dry patches disappeared at the same time as the night blindness.

The Graver Fevers of Child-bed.

Dr. W. C. Neville contributes an article on this subject to the *Dublin Jour. of Med. Science*, November, 1884, which thus concludes:

1. There are a variety of puerperal fevers, but no one "puerperal fever," properly so-called.

2. Some of the less serious fevers result from local inflammations, combined with some degree of toxæmia.

3. Various exanthemata—notably scarlatina—may occur about the period of child-bed, and are then manifested in a more or less blurred form, though they can usually be recognized by specific peculiarities. Such fevers are apt to be complicated by endogenetic toxæmia, septic poisoning, or septic infection.

4. There are two chief types of puerperal toxæmia accompanied by fever—the infective and non-infective.

5. The non-infective form is the result of septic poisoning, and comprehends the greater number of sporadic and, in its uncomplicated form, more remediable cases of puerperal fever.

6. The infective form results from heterogenetic infection—septic, erysipelatous, diphtheritic, etc.—and includes the greater number of serious

child-bed fevers, especially such as assume what is usually known as the "epidemic" type in the practice of hospitals or individuals. The succession of cases is kept up by the actual transfer of the infective contagia (almost certainly consisting of pathogenic bacteria or their spores, contained in the unhealthy secretions), by hands, instruments, etc., from one patient to another. The initial case of such a series may be due to the infection of the patient with septic material derived from the juices of some corpses—especially such as are but lately dead of some malignant infective disease—from gangrenous, sloughing, erysipelatous, or diphtheritic wounds, etc.

7. There are exceptional cases in which, thugh the symptoms and progress resemble closely those of the infective fevers, no foreign source of infection can be discovered. Some of these cases may originate in usually severe traumatisms or crushing occurring during labor, followed by sloughing, etc.; others in an intensification of a pre-existing catarrhal or gonorrhœal inflammation of the genital passages; and others, again, in the local and neighboring inflammatory consequences of the retention within the uterus of decomposing portions of the placenta.

Operative Treatment in Intestinal Obstruction.

In the first Harveian Lecture (*Brit. Med. Jour.*, November 22, 1884), Mr. Thomas Bryant lays down the following rules for operative treatment:

1. Laparotomy should be undertaken as soon as the diagnosis of acute intestinal strangulation is made. There should be no delay allowed for the formation of a specific diagnosis of its cause. It should likewise be proposed in all cases of acute intussusception, and of chronic, which have failed within three, or, at the most, four days, to be releived by other treatment.

2. In all operations of laparotomy, it is to the cæcum that the surgeon should first advance, since it is from it he will obtain his best guide. If this be distended, he will at once know that the cause of obstruction is below; if it be found collapsed, or not tense, the obstruction must be above. Adhesions or bands are, moreover, more frequently near to, or associated with, the cæcum, than with any other part of the intestinal tract. It is also in the right iliac fossa that the collapsed small intestine, in cases of acute strangulation, is usually to be found; and, with this as a starting-point, the surgeon will have less difficulty in tracing up the intestine to the seat of strangulation than if he begins at a distended coil, when it will be a matter of chance whether he travels away from or towards the special object of his search—the seat of obstruction.

3. In a laparotomy, when the strangulated coil of bowel is gangrenous, it should be brought out of the wound, and the gangrenous knuckle resected. The proximal and distal ends of the resected bowel should then be stitched to the edges of the wound, and an artificial anus established.

4. Nélaton's operation of enterotomy should be undertaken in all cases of intestinal strangulation, when laparotomy is rejected or seems inapplicable, as well es in cases of intussnsception in which the invaginated bowel canuot readily be released. It should be performed in the right groin, or, rather, right iliac fossa.

5. If laparotomy succeed, the cause which called for it is removed, and the normal action of the bowel is restored. If resorted to early, and as a rule of practice, it is probable that it would be more successful than the treatment by opium, inflation, or purgatives, which has hitherto been in vogue.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——A remarkable case of successful œsophagotomy for the removal of a foreign body (a gold tooth plate) is reported in a reprint before us, by Dr. Leroy McLean, of Troy, N. Y.

——The success which at times attends the judicious hygienic treatment of acute urania is illustrated in a paper from the *Alienist and Neurologist*, by Dr. A. Nellis, jr., of Willard, New York.

——Dr. W. O'Daniel, of Bullard's, Ga., in an article from the *State Transactions*, argues that the plaster splint is preferable to all others, "because accidents can be successfully treated with less trouble to the physician or surgeon in charge, with less risk and with a greater degree of comfort to the patient; and certainly so in preventing displacements, which, if not discovered and corrected before union, sometimes leave life-long deformities, which frequently disable patients who remain standing indices against competent and skillful surgeons, who are frequently considered by the unprofessional responsible for the ignorance or negligence of nurses and the obstinacy of patients themselves; and last, but by no means least, the patient is saved a long term of service in bed, on his back, from probably a simple fracture of the leg."

——Dr. Thos. F. Wood, of Wilmington, North Carolina, publishes a pamphlet on "The Work of Medical Progress in North Carolina." As Secretary of the State Board of Health, he speaks with full knowledge, and his report is a cheering one.

——A contribution to the study of muriate of cocaine in ophthalmic surgery comes to us from Dr. C. J. Lundy, of Detroit, Michigan.

BOOK NOTICES.

Transactions of the Medical Society of the State of Pennsylvania. Vol. xvi. Published by the Society. Philadelphia, 1884.

This is a handsome, well-printed volume of 622 pages, and its contents are every way worthy of the care with which they have been issued.

There are a large number of original papers, the result of close personal observation and heedful reasoning.

It would not be worth while to give the list of them here. We have already done more than that in our report of the meeting of the society, to which this volume refers. They cover a wide ground in both medicine and surgery, and there are few special branches but are represented by one or more articles which offer a real increment to knowledge.

Several of the articles are illustrated, and doubtless many of them will see the light in other media, where they will be more accessible to the general public.

The excellent feature of receiving reports from county societies is kept up, something over twenty counties responding to the call, and the part of the publication they furnish is by no means the least valuable. We trust that these will be fostered as much as possible, as this is one of the most potent plans of securing general interest in a State society.

The Story of My Life. By J. Marion Sims, M. D., LL. D., edited by his son, H. Marion Sims, M. D. 8vo., pp. 371. New York, D. Appleton & Co., 1884.

When the great Gœthe set about writing his autibiography he boldly and honestly called it "Truth and Fiction;" and it would be better were this title given to ninety-nine out of every hundred biographies composed by the subjects themselves. As a rule, they could not write the truth about themselves were they to try, and as a still more general rule they will not try.

Dr. Sims' autibiography is a pleasant book, reminding one in its vivid portraitures and in its strong personality of those delightful old "Memoires," which the French of the last century had such a genius for compiling. He tells the incidents of his interesting career with the zest of a romance writer, and the occurrences and conversations of his early life are set forth in a vigorous style.

The medical reader will turn with the greatest interest to chapter xiv., in which the writer describes the progress of his discovery of the operation for vesico-vaginal fistula. It is told with all his usual realism of description, and with a remarkable poetic license of the imagination. Those who are acquainted with medical history know perfectly well that Dr. Sims did not originate the operation, nor did he even introduce any important improvement in it. The silver suture, the shot fastening, the method of exposing the lesions—all these had been practiced and published before the date of his asserted discovery of them, and if he did not know of them, it was because he had not read the current literature of his profession.

We do not wish to detract an iota from any just claim of Dr. Sims', but we are equally unwilling that he or his admirers should detract from the just claims of others; and we cannot refrain from expressing our astonishment that Dr. J. N. Toner, undoubledly the most thorough medical historian of our country, in the biographical sketch which he appends to the volume, should pass over this unfounded claim in silence.

The history of this operation has been published in various quarters, and in its general introduction and popularization, Dr. Sims did a master's work, and one that cannot be too highly praised; but his claim to having originated it must be regarded as a case of self-delusion, or unconscious memory.

A Practical Treatise on the Diseases of the Ear, including a sketch of aural anatomy and physiology. By D. B. St. John Roosa, M. D., LL. D. Sixth edition. 8vo., pp. 718. New York, Wm. Wood & Co., 1884.

Among the standard works on aural diseases, the above-mentioned treatise has long held one of the highest places. It is complete, largely the direct result of the author's own studies, written with the intention of making his subject clearly comprehended, and by careful and frequent revisions, kept well up to the times.

The present edition has undergone a thorough revision, involving both many alterations and a number of additions, materially increasing its bulk, and likewise adding to the interest it will have for the advanced student and the specialist. The illustrations are numerous, and are well printed. Quite a number of them have been prepared especially for this edition from anatomical specimens in the possession of the author or his friends.

Elements of Surgical Diagnosis. By A. Pearce Gould, F. R. C. S. 18mo., cloth, pp. 584. H. C. Lea's Son & Co., Philadelphia, 1884.

This volume belongs to the series of "Manuals for Students of Medicine," which is in course of publication in London. They are, as we have said before, far superior to most such series, and the present issue is no exception to that rule. It is clearly the work of an experienced surgeon, who has his material well in his mind and can express himself tersely and clearly. No practitioner in surgery can read it without deriving great benefit from its many suggestions.

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THE BEGINNING OF 1885.

With the beginning of the New Year it is an old and a good custom to lay out one's plan of labor, and to make certain projects and determinations for one's action during the next twelve months.

What is the habit for the individual guidance may profitably be applied to the professional life. There is always a good, a better, and a best employment of one's time in his profession. It is not enough to measure this by the one standard of pecuniary gain. However necessary this may be, it is not the only nor is it the highest common measure of action. In our avocation especially, there are other and more urgent duties than that of simply putting in the time to the greatest money profit. In fact, it may be said that he who looks solely at the main chance will often miss it through the consequences of this narrowness of his visual range.

There are many things besides this which will occupy the hours of the enlightened physician. He will pursue some investigation the results of which will accrue to the benefit of his fellows; he will impart the experience he has gained to the world through some of the avenues which now offer themselves in such abundance; or he will engage actively in some of the measures which are always in discussion in medical societies, and which look toward the benefit of the profession as a body or of the public at large.

It would be well if every physician at the close of his career could point to some such purpose clearly defined and successfully prosecuted, and call it the fruit of his labors. Were this a general rule the amount achieved in the aggregate would be great, and the rate of progress would be vastly increased.

Now that the young year is beginning, with so much in it in store for all, with so much in sight that urgently asks the doing, we make these suggestions, trite ones, if you please, but ever timely ones, so long as there remains need for their adoption. They are appropriate at all periods, but particularly so when we enter upon a new epoch in our lives.

THE REPORT OF THE SURGEON-GENERAL.

The annual report of the Surgeon-General contains a number of items of wide interest.

One of these is the comparative mortality and liability to disease of the white and colored soldiers. Among the white it was 12 per 1,000 of mean strength, and among the colored it was 10 per 1,000.

It is interesting to note that not only is this the lowest death-rate yet reached among colored troops since their organization, but it is the first time that the rate has fallen lower than that for white troops; the usual average difference being 3.2 per 1,000 of mean strength, in favor of the latter class.

The admission-rate for malarial diseases which, in the aggregate, constitute 11 per cent. of all diseases and injuries reported, is 10 per 1,000 lower than for the previous year. Contrary to accepted opinion, malarial diseases have shown themselves to be more frequent among the blacks than the whites, the admission-rate for the former being 62 per 1,000 higher for this year, and 14 per 1,000 higher for the previous year. It is believed that this apparent increase can be explained by the fact that all regiments of colored troops, except one, are, and have been, serving for many years in an especially malarious region—the Indian Territory, the State of Texas, and the Southern part of Kansas, together with the States of Missouri and Arkansas, an area which, while it contains less than 20 per centum of the strength of the army, furnishes nearly 50 per centum of all cases of malarial diseases reported.

Comparative ratios for white and colored troops who have been stationed together for an irregular series of years, between 1876 and 1880, inclusive, within the region indicated, show, as a rule, a greater prevalence of malarial diseases among whites; but they also show that departures from this rule are of occasional occurrence, and are usually due to explainable causes. The average difference between the two races for malarial diseases was, during the years noted, 76 per 1,000 of mean strength in favor of the colored race.

The colored troops present a higher rate than white troops for syphilitic and other venereal diseases. On the other hand, their comparative freedom from intemperance continues to be of interest.

With regard to consumption, while there appears to have been no material difference between the two races in the rate of admission during the year, the combined rate of loss by deaths and discharges has been somewhat in favor of the white troops.

Typhoid fever was unusually prevalent during the year. It appeared principally in barracks, and could be traced to defective drainage and sewerage, bad ventilation, overcrowding, and impure drinking water. There does not seem evidence that it was conveyed from one post to another by the transfer of the soldiers.

The progress of the medical and surgical history of the war has been slow, partly owing to the long sickness and final decease of Dr. J. J. Woodward.

Brief necrological notices of the medical officers deceased during the year are appended.

TREATMENT OF CHOLERA-DIARRHŒA BY ENTERO-CLYSMA.

Prof. Arnaldo Cantani, of Naples, introduced, in 1870, the treatment of intestinal catarrh by entero-clysma, viz., by injections, carried high up in the canal. According to the nature of the disease, the character of the injected material varied. When this year the cholera ravaged in Italy (our readers will remember that the Asiatic epidemic appeared with a remarkable severity in that country), Prof. Cantani concluded to try the same mode of procedure in the prodromic stage—the diarrhœa of cholera. As he seems to have succeeded admirably, we bring in the following, a synopsis of an article which he published on the subject in the *Centrlbl. f. d. Med. Wissensch.*, November 1, 1884:

To determine the nature of the fluid to be injected C. thought of the alkaline reaction of the intestinal discharges in cholera, and of the fact, established by recent investigations, that all acids

were inimical to the existence and propagation of the comma-bacilli, which are met with in such large numbers in recent cases of Asiatic cholera. He could not employ carbolic acid, as the quantity to be used would have been dangerous to the life of the patient in case of the absorbing power of the mucous membrane of the bowels being retained. He had often succeeded in curing recent and chronic intestinal catarrh, chronic ulceration of the bowels, and infectious dysentery, with tannic acid; and he concluded, therefore, to make a trial of the same remedy in the premonitory stage of diarrhœa in cholera, especially as tannic acid is capable of preventing putrefaction, and possesses, therefore, more or less disinfecting power.

In many hundreds of cases the result of these tannic acid injections has been so favorable, that C. is convinced that their general adoption at the beginning of cholera-diarrhœa during an epidemic of cholera would lead to the total prevention of the development of the grave attacks, or at least, reduce their number to a minimum.

The following formula was employed by C.: Tepid water (which has previously been boiled 2000.0), tannic acid 5. 0—6. 0—10. 0, gum arabic 50. 0, laudanum ♏ 30 to 50. C.'s assistants preferred an infusum florum chamomillæ to water.

In some cases, where the entero-clysma could not be administered according to C.'s method (3 to 4 meters high up in the bowel), the same favorable results were obtained by the use of a common syringe, if the cases were seen at the earliest beginning of the disease. In more advanced stages the common syringe did not suffice.

Where in a family some member was suffering from cholera, any diarrhœa attacking other members of the same family were at once looked upon as cases of premonitory cholera-diarrhœa, and treated according to the method described. Generally one single application of the entero-clysma (at a temperature of 38° C.) succeeded in stopping the discharge; the characteristic cholera-diarrhœa at once ceases, and a free interval of from 8 to 12 hours follows; after each fresh discharge the procedure is repeated, and usually four to five such injections suffice to put a stop to the great loss of water, which the blood suffers, to insure a continuance of the urinary secretion, and to induce at once the febrile stage without any typhoid complications, so that the algid stage never sets in in cases thus treated.

For the purpose of determining the manner in which tannic acid acts in these cases, C. instituted a series of observations in his clinic, and these demonstrated the fact that while the remedy does not effectually kill the comma-bacilli, it completely prevents their propagation and multiplication, and deprives them of all power of locomotion during at least twenty-four hours. This fact explains the action of tannic acid in the prodromic stages of the epidemic.

While it is possible that other remedies, thus locally applied in C.'s manner, may have a still better effect, C. believes that in tannic acid, if administered as described, we at least possess a drug which makes an abortive treatment of Asiatic cholera a possibility. These statements of Prof. Cantani carry with them the more weight, as his experience at the time of the epidemic in Italy in more than 300 cases, showed in each case invariably the same favorable result, not one single case of those thus treated developing into a graver form of the disease.

Notes and Comments.

General Precautions in the Administration of Anæsthetics.

While we are frequently taught that we must be very careful in the administration of anæsthetics, yet it is well that this caution should be constantly impressed upon our memories, hence we deem it well to reproduce the conclusions with which Dr. George Eastes concludes his paper in the *Brit. Med. Jour.*, November 29, 1884. They are as follows:

1. The patient should have no meal (except in cases of extreme feebleness) for four hours beforehand, to avoid the tendency to vomiting. A little brandy or ammonia may be given with some water fifteen minutes before the operation if the patient be an adult and chloroform be selected.

2. The anæsthetist should endeavor to reassure the patient by a kind, gentle manner, which may

calm an agitated heart, and induce easy respiration.

3. No tight-fitting garment or band should be left around the chest or abdomen.

4. All artificial teeth must be removed from the mouth.

5. The anæsthetist should examine the heart-sounds and pulse before the operation. This precaution may seem superfluous, in most instances, but in a few cases may put the administrator on extra guard.

6. The patient should be placed in the recumbent posture, with the head but slightly raised. This is particularly important when chloroform or any other cardiac depressor is used.

7. The anæsthetic should be applied in the manner most suitable to the vapor used, about which I have already sufficiently spoken under the heading of each drug that I have mentioned.

8. The surgeon should not commence his procedure before the patient is fully narcotized ; not alone in severe operations, for many simple procedures, such as the reduction of dislocated joints and strangulated hernia, and the diagnosing of tumors of the abdomen and pelvis, require complete muscular relaxation for their successful attainment.

9. It is a golden rule never to give more of the anæsthetic than is necessary for the production of sufficient anæsthesia for the operation that has to be performed. Since every extra degree in anæsthesia is an advance along that road whose extreme goal is death, the patient should be taken no nearer the dreaded end than is quite requisite, as all the steps passed have to be retraced. Besides, as the gap separating the patient from death becomes lessened, it may easily arise that, in extreme narcosis, one extra and apparently trivial event, which in health would be quite inoperative to cause a fatal issue, may determine the patient's career.

10. Wherefore, lastly, as the work which the anæsthetist performs depends for its successful result on such a number of nicely-balanced conditions, his whole attention, during the few minutes of his employment, should be concentrated upon the case. He must watch the respirations, the pulse, the countenance, and the general condition of the patient. He should not be observing attentively the steps of the surgeon's procedure, otherwise he may fail to notice the first sign of danger in the patient, and the life, for which he is chiefly responsible, may be jeopardized before it is recognized that it is in peril. Moreover, the anæsthetist may rely upon receiving more than full recompense for all his care in a decreased number of mischances and a welcome table of good results.

Caries of the Cricoid Cartilage.

The following remarkable case specially adapted to mislead the most experienced diagnostician is published in the *Annal. des Malad. de l' Oreille et du Larynx*, 1884, 7, and is of great interest on account of its diagnostic importance :

A dealer in wines, æt. 38, had for two months been losing flesh decidedly without his having any cough or apparently suffering from any disease, except a certain hoarseness in his voice and a pain on deglutition, which later showed itself whenever the patient swallowed solid food. Four weeks later, nightly attacks of suffocation and a daily increasing dyspnœa were added to the symptoms. Except a slight difficulty on divergence of the vocal chords, nothing abnormal could be detected; neither revealed the examination of lung and heart any morbid condition. Within one week the difficulties greatly increased, and the examination again made with the laryngoscope now revealed immobility of the chords in the median line. Tracheotomy, at once performed, procured some ease, but a rather intense pain, felt at both sides of the larynx, still persevered. About a month later, the vocal chords moved somewhat better, but had become red and slightly swollen, and the same was observed of the external arytænoid region. The general emaciation of the patient progressed in such a degree as to make a skeleton of him, and the pain on deglutition increased in severity. The sputum commenced to contain tubercular bacilli, and over the left apex crepitant rales were perceived. Six weeks later, the patient presented a sad picture ; the wound made by tracheotomy assumed a malignant aspect ; the lower margin of the thyroid cartilage was laid bare, being ossified and necrotic ; there was complete aphonia, and the vocal chords and the aryfold were infiltrated.

The patient died, and the post mortem examination revealed the following: Both lungs were thickly sown with tubercles, and the original disease, caries of the cricoid cartilage, was discovered. It formed an ossified, rarified, and purulent mass, which penetrated into the œsophagus and had caused a thickening of the arytænoid region. It is possible that the life of the patient might have been saved, if the exact diagnosis of the condition of the cricoid could have been made at the very beginning, and the cartilage had been removed.

The Protean Character of Gout.

As of interest in connection with the remarks on this subject by Mr. Hutchinson (see Vol. 51, p. 741) we are pleased to note two corroborative cases which Dr. A. Conan Doyle reports in the *Lancet*, November 29, 1884. In these cases, the grandfather was thoroughly gouty; the father had skin affections without any other gouty symptoms, and the third generations (the cases in question) exhibited eye symptoms and nothing else. The most striking feature of these cases was that they improved rapidly under the use of colchicum and alkalies.

Removal of a Tumor from the Brain.

The *Brit. Med. Jour.*, November 29, 1884, reports that on November 25, at the Hospital for Epilepsy and Paralysis, in London, a tumor was successfully removed from the substance of the brain. The case was under the care of Dr. Hughes Bennett, who, having diagnosed an encephalic morbid growth of limited size, and localized it in the upper part of the fissure of Rolando, requested a surgeon to trephine the skull over the suspected region. This was carried out by Mr. Rickman Godlee. A mass of glioma, of the size of a walnut, was extracted from under the grey matter of the upper part of the ascending frontal convolution. Up to the present time (November 29), the patient has progressed favorably in every respect.

Retroversion of the Gravid Uterus.

Before the Harveian Society of London (October 16, 1884), Dr. Amand Routh read details of five cases of retroversion of the gravid uterus, two of which, when first seen, were complicated with resulting retention of urine; the bladder in these cases exactly simulating the objective signs of unilocular ovarian cyst. Seventy ounces of urine in the one case, and fifty ounces in the other, were drawn off. Reduction was easily effected in all the cases, without subsequent abortion occurring, and with immediate relief of the symptoms of backache, nausea, and frequent micturition. The importance of early diagnosis and treatment was insisted upon.

Dr. Champneys referred to a case recently seen by him, in which an India-rubber bag was introduced into the rectum, and distended with water under a pressure of four feet, with excellent results.

Chorea in the Aged.

While not common, yet chorea does occur in old people, and since it is likely to be mistaken for senile trembling, we deem it well to call attention to the cases which Dr. Robert Saundby reports in the *Lancet*, November 29, 1884. He reports three cases which he has observed himself, and refers to nine other cases that have been reported by different authors. Dr. Saundby considers that the symptoms are sufficiently characteristic to render the diagnosis easy, and, according to his views, when it is mistaken for senile trembling, it is because the physician does not know that chorea may occur in old people. While not sure of the pathology, yet he is inclined to believe that it is not merely a functional disease, but that there is some actual structural change, such as small hemorrhages in the corpus striatum. In regard to treatment, he has little of value to say. He has found bromide of potassium of some little use, and in one case, which recovered, sulphate of zinc was used. In all of the cases reported, the general health was very bad. For such feeble old people, cod-liver oil is one of the best remedies.

Salicylate of Sodium in Malaria.

Not long since, salicylate of sodium was highly recommended as a preventive in yellow fever. This fact induced Dr. von Kirchbaur, assistant physician of the 16th Infantry Regiment of the Prussian Army (*Allg. Med. Centr. Zeit.*, November 5, 1884,) to try the remedy in a case of intermittent fever which had baffled his skill for several months. Every possible preparation of the Peruvian bark, all its alkaloids and arsenious acid—these administered in large doses and enormous quantities — had been tried in vain. The patient was a woman, and the fever had the quotidian type. K. advised her as a last remedy to take 16 grains of the salicylate of sodium in lemon-juice about an hour or two before the expected febrile seizure. After the very first dose the attack was much milder than it had generally been; the second seizure omitted, and after the seventh dose—daily one such dose having been taken—the intermittent fever had left and not returned at the time of publication, three months later.

Several months ago we published in the Medical and Surgical Reporter a series of observations regarding the effect of salicylate of sodium, and mentioned at that time that it was a very safe remedy, more reliable than quinine as a febrifuge, almost tasteless, easily soluble in water, and never causing tinnitus aurium. We then recommended more extensive trials in malaria, and we again do so to-day.

Thallin—Another Antipyretic.

The *Medical Press*, November 26, 1884, thus refers to it:

"Dr. von Jaesch, of Vienna, has recently stumbled on still another synthetic antipyretic, which he introduced to the notice of the Society of Physicians of Vienna, on October 31st, the chemical name of which is zetrahydroparachinanizæ. The name no doubt is an excellent one for ceremony and great occasions; but recognizing that life is short, and not to be all spent in pronouncing names, he has mercifully given it the shorter one of thallin, by which it will be sufficiently well known if it proves to be worthy a name at all. He has already employed it in 86 cases of pyrexia of various kinds, viz., pneumonia, typhoid, erysipelas, measles. The fever was cut short with certainty, and without any disagreeable bye-effect, but the effect upon the course of the disease was in other respects nil.

"In doses of $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ gm. the temperature fell several degrees. Of the various salts of the drug enumerated by him—sulphate, tartrate, hydrochlorate—he recommends the first-named for clinical purposes, and suggests that it may well be employed when all other antipyretics have failed."

Skim Milk in Diabetes Mellitus.

Dr. J. Lindsay Porteus does not seem to think that the treatment of diabetes mellitus with skim milk has received the attention that it deserves, and he therefore publishes a paper on the subject in the *Edinburgh Medical Journal*, December, 1884.

Skim milk diet as recommended by the late Dr. Donkin has, in his hands, proved very successful. To do good, it requires resolution and much self-denial on the part of the patient to throw aside all the good things of this life, and live on skim milk, and nothing but skim milk. At first the patient eagerly catches at the chance of relief from the excessive thirst, parched skin, and other tortures, and steadily determines to take the skim milk, but, as a rule, on the fourth or fifth day he begins to tire of it, and, as in one case under his observation, the sight of it made the patient vomit. Fortunately in some cases a little kindly encouragement helps him to overcome his dislike, and with renewal of the remedy a cure is effected. He has seen much good, but never a cure by the codeia treatment. The drowsy and languid feeling which it causes, are sources of great annoyance and depression to the patient. The sp. gr. and sugar are often decreased by it, but the latter never entirely leaves. The same remarks hold good with regard to opium.

To Render Oral Suction After Tracheotomy for Diphtheria Harmless.

In view of the fact that Dr. Rabbeth recently died in England from diphtheria contracted by sucking the tracheotomy tube, Dr. John W. Ogle writes to the *Lancet*, November 29, 1884, offering the following suggestion, which seems to have a ring of good sense about it.

He suggests that such suction would be rendered free from any risk, provided that a piece of some very thin, soft, and pliable material, such as extremely delicate cambric or silk (or so-called "grenadine" or "gossamer"*), three or four inches square, were laid over the windpipe and so adapted as to form a small pouch or sac over the orifice made therein, which should be received into the mouth of the operator before the suction was practiced. The character of the tissue or material would permit of the movements of the lips and tongue appropriate to the act of sucking; and the diphtheritic stuff would be almost as easily drawn into the sac contained in the mouth as if nothing had been interposed between the windpipe-orifice and the cavity of the operator's mouth. It would doubtless be, also, advantageous if the substance forming the sac or pouch into which the diphtheritic material would be sucked were well moistered by some suitable antiseptic liquid, such as a solution of boracic or salicylic acid, or a spirituous solution of thymol or diluted oil of eucalyptus. By such a procedure as the above described the diphtheritic films and fluids aspired into the mouth would not, in any case, come into direct contact with its lining membrane; and in this way danger to the operator would be entirely obviated.

Intra-Uterine Therapeutics.

The question of intra-uterine therapeutics, or the proper drugs to introduce into the cavity of the uterus has been a very much-discussed question. Dr. Lombe Atthill read a paper on the subject before the last meeting of the British Medical Association, and we give his conclusions:

1. Carbolic acid, in the proportion of one part of spirit to two of the acid, is the safest and most generally useful of all the agents employed.

2. Carbolic acid should always be applied by means of a probe, round the point of which a layer of cotton is rolled, the cotton being carried up to the fundus at least twice on each occasion that the applications are made, which should be on every third or fourth day, till marked improvement takes place.

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*Possibly some texture like goldbeater's skin.

3. Carbolic acid should never be injected into the uterus, except when combined with iodine, in the form known as iodized phenol.

4. In many cases, iodized phenol may with advantage be applied by means of a probe.

5. In cases in which metrorrhagia or profuse menstruation occurs, depending on an unhealthy condition of the intra-uterine mucous membrane, the cavity being dilated and the uterus enlarged, from half a drachm to a drachm of iodized phenol may be injected with great advantage.

6. In cases in which epithelioma attacks the mucous membrane of the cavity, the injection of iodized phenol promises better results than any other treatment.

7. The success likely to follow the injection of iodized phenol renders the dilatation of the uterus, the use of the curette, and the subsequent application of fuming nitric acid, less frequently necessary than has been the case hitherto.

8. The injection of iodized phenol requires to be carried out with so much care, that it should never be injected except by means of a syringe which will not contain more than one drachm.

9. The use of the fuming nitric acid should be limited, as a rule, to those cases in which dilatation has been practiced, and it should always be applied through a tube, inserted into the cervix uteri for the purpose of protecting the sides of that canal from the action of the acid.

10. The pain produced by the application of any medical agent to the intra-uterine cavity, does not bear any relation to the activity of that agent, but is due to one of two causes—either to hyperæsthesia, or to narrowness of the cervical canal, especially of the os internum.

Special Report.

REPORT ON THE USE OF MURIATE OF COCAINE.

BY DUDLEY S. REYNOLDS, M. D.,

Professor of General Pathology and Diseases of the Eye and Ear in the Hospital College of Medicine, Louisville, Ky.

Reported by ALLEN KELCH, M. D.

I received from a friend in Philadelphia, on the 20th of October, two grains of the muriate of cocaine in a letter. This I dissolved in a drachm of water, and instilled it, a drop every five minutes, into the eye of a patient with a large fleshy pterygium. The instillation was begun at 1:10 p. m. Three instillations being made, I found at 1:30 complete anæsthesia of the conjunctiva. Introduction of the speculum produced but slight discomfort. The vessels of the ptergyium had been greatly contracted, so as to diminish the suffusion which had existed before the use of the drug. I dissected up the apex of the growth, and cut it loose with scissors from its point of attachment to the side of the healthy conjunctiva; and turning it back stitched the conjunctiva together with three sutures, subsequently making incisions around the cornea on each side, and then the usual radiating incisions at right angles with these to relieve tension. All this was done without complaint on the part of the patient. He declared he felt the operation, but experienced no pain.

At 4 p. m., on the same day, Miss N., the subject of double convergent squint, was treated to one instillation into each eye. In three minutes anæsthesia was pretty well established. A second instillation was then made into the right eye, and in one minute more the operation of tenotomy was begun. Introduction of the speculum created no pain, though she said it felt uncomfortable. Seizing the conjunctiva with toothed forceps and snipping it with scissors produced no evidences of discomfort or even consciousness of the proceeding on the part of the patient. Raising the tendon with the blunt hook was painful; it was divided, however, as I thought, with less pain than usually attends the proceeding, the operation being completed in seven minutes from the time of the last instillation, and twelve minutes from the time of the first. The conjunctiva of the left eye tested by touch and finding it insensible, the speculum was introduced and the conjunctiva seized and snipped without hemorrhage. On dividing the fascia the patient complained. I applied a sponge to remove a drop or two of blood which flowed, and dropped into the wound about one minim of the solution of cocaine. In three minutes I was able to pass a probe behind the tendon without pain. On making it tense, however, the patient complained; yet the process of dividing the tendon was accomplished with less complaint than was made at the same proceeding in the fellow eye. Upon the whole, I concluded the cocaine had greatly diminished the patient's sufferings, as well as reduced the hemorrhage.

On the 23d of October a gentleman, twenty-six years of age, of full habit, and who had for a long time been the subject of occasional attacks of acute otitis media, came to see me early in the morning. One drop of the solution of cocaine was placed in the ear upon the surfaces of the drum membrane, which had already been observed to be of a straw color and bulging outward. In three minutes he announced abatement of the

pain; in four minutes he expressed himself as feeling more comfortable than he had since midnight, notwithstanding morphine, including one hypodermic injection, had been administered by the family physician in the night. I then touched the bulging membrane with the end of a probe cautiously; it brought forth no response. I then punctured it freely with the lance, allowing four or five minims of straw-colored fluid, slightly tinged with blood, to make its escape. The patient being unable to blow air through the ear, I introduced an Eustachian catheter and blew out a few shreds of lymph along with a little bloody serum. At one o'clock p. m., the patient had suffered no return of the pain. He went home, took twenty grains of quinine, and went to bed. Next morning, he called to say he felt no discomfort from the ear. Examination showed that the incised membrane had united.

November 7, Mr. B. called; he had lost the sight of the left eye thirty years ago from a wound. During the last year he had noticed the sight failing in the right. Inspection showed incipient cataract. As he was now unable to go alone in the streets, it was decided to lacerate the capsule, allowing the lens to imbibe the aqueous humor in order to hasten the maturation of the cataract for extraction. One drop of the cocaine solution was instilled at 9:30 a. m. At 9:34 the speculum was introduced, and finding the cornea anæsthetic, I passed a needle through and lacerated the capsule vertically from the margin of the dilated pupil below to the corresponding point above; withdrawing the needle, about a drop of aqueous humor escaped, and the speculum was immediately removed. When this was done, the patient asked me what I thought about his eye, and on looking around, announced that everything now looked like snow. He was quite surprised to learn that I had operated.

On the 12th of November, at 2:10 p. m., one drop of the cocaine was again instilled; at 2:10½ another, and at 2:15 anæsthesia being established the speculum was introduced; section of the cornea was completed without the patient's knowledge; seizing the iris with forceps and drawing it out through the lips of the wound, the patient exclaimed, "Be careful." I snipped it off, however, without any twitching or manifestation of pain on the patient's part. The lens quickly followed without coaxing. The speculum was then removed, the lids being closed for a few moments. I practiced the usual circular movements over the closed lids in order to press out all remains of the cortex from the peripheral portion of the capsule, and on reopening the lids no difficulty presented itself in removing what appeared to be all the remaining portion of the cortex. At 2:20 the operation had been completed, and the patient declared that the drops instilled had improved his sight, seemingly unaware that he had been operated upon. It may be proper to say that this patient was eighty-five years of age, though a man of robust health, and apparently, not more than sixty.

November 14, came a child, 7 years old, with congenital catarrh in the right eye. One drop was instilled at 10 a. m., at 10:01 another; 10:05 the patient made no objection to the introduction of the speculum. I instantly thrust a needle through the cornea, and lacerated the capsule freely, carrying the needle into the substance of the lens with a rotary motion, after the fashion of drilling. The needle and speculum were both quickly withdrawn, followed by the escape of two or three drops of aqueous humor, but no tears. The child said it didn't hurt, but felt like pulling the eye. No irritation of consequence followed, and the child, who lives sixteen miles in the country, returned home the next day.

At 11 a. m., Mr. G., a plow-grinder, called with a foreign body in the cornea of the right eye, which was now quite sensitive and suffused, the pupil being narrowly contracted, and the patient complaining of circum-orbital pain. Several ineffectual attempts had been made to remove the body.

One drop of the cocaine produced in two minutes relief to the pain; in four minutes the patient opened the eye freely; in five I separated the lids with my thumb and index finger, and with a spear-pointed needle made a triangular incision into the cornea, and turned out of the proper substance, without pain, a large grain of emery. Almost immediately after its removal, however, the patient complaining, I instilled another drop, which gave prompt relief and almost entire disappearance of the suffusion of blood in the conjunctiva. At 11:30 he left the office with dilated pupil and without pain.

November 15. Mrs. McD. has dacryo-cystitis. During the last four days the eye has been tender to the touch about the inner canthus, and as the tears constantly flow over, the patient comes now for relief. She is filled with fear lest some operation of a painful character may become necessary. At 9:40 an instillation was made. At 9:47 patient permits inspection of the eye with pressure on the globe. I now passed the point of a scissors into the inferior punctum, and dividing it freely,

passed a No. 4 Bowman's probe quite into the sac before the patient was aware of the nature of the proceeding. On attempting to enter the nasal duct, she complained, and would have me withdraw the probe, when a considerable quantity of muco-pus escaped from the enlarged punctum. Another drop of the solution was instilled at 10 a. m. The duct had been fully explored, first with a No. 4 Bowman's probe, then with a No. 6, without any sense of pain whatever. On the 16th she returned, and in five minutes after the instillation of a drop of the cocaine permitted me to pass a No. 6 probe without complaint. This was done daily until the 28th without pain, when the patient was discharged cured.

With a view to determine more exactly the extent of the effects of the cocaine, I obtained a fresh supply from Prof. Diehl, the solution being the same strength as that used before, viz., 2 gr. to the drachm of distilled water.

November 17, there came Mr. T. with a colloid cyst in the upper lid near the centre, and about the size of a marrow-fat pea. He had long had this tumor: there was no pain about the eye, but he complained so much when I everted the lid that I instilled a drop of the solution just named, as much to pacify him as to diminish his sensibility to the proceeding. Seven minutes after this instillation he permitted the eversion of the lid without complaint, whereupon I divided the free border of the lid with a Beer's knife, laying open the cyst, and with a David's spoon scraped out all the contents of the sac. He complained a little, said "it didn't hurt much," and I fancied the hemorrhage was less than usual in such operations.

Miss M., æt. 19, the subject of styes, now has one in each upper lid, attended with considerable inflammatory action, and a great deal of pain. She declines to permit surgical interference. Instilling a drop of the cocaine solution into each eye, she was greatly surprised, in five minutes, to find that she could now permit me to press upon the lids and examine the eyes to my satisfaction without creating pain. Unknown to her, I thrust a knife into one of them, and evacuated its contents. She declared it hurt, and would not permit me to open the one on the other eye. The next day, however, she returned, and after another instillation of the cocaine submitted to the opening of the remaining one.

On the same day, Mr. L., a very neurotic subject, suffering with asthenopia, was subjected to an instillation with the view to determine its effects upon the accommodation of the eye. The sense of pain and soreness in the ball disappeared in two minutes after the application: anæsthesia of the cornea and conjunctiva was established three and a half minutes later. After the lapse of five minutes, no perceptible change in the accommodation had occurred, the patient reading without pain, however, for the first time in weeks. In ten minutes the near point had receded, the patient being still able to read. At fifteen minutes, but little change; at eighteen, his hypermetropia, which had been latent at first, now became manifest; at twenty-five minutes, no change. Another instillation was made: thirty minutes, accommodation almost suspended. No longer able to read, saw $\frac{20}{LXX}$. Glasses brought his vision to $\frac{20}{XL}$, which was the best result possible.

On the 18th, he was subjected to the instillation of an 8 gr. solution of hematropia, when with glasses $+ \frac{1}{18}$ he saw $\frac{20}{XX}$.

(*To be continued.*)

Correspondence.

Hermaphroditism in a Hog.

Eds. Med. and Surg. Reporter:—

A friend had a hog that appeared to be of both sexes. I desired to be at the slaughtering, and though denied the privilege, my friend saved all the private organs except the uterus. I have not dissected them, but a mere inspection shows the testicles to be nearly perfect. Attached to them are the ovaries, with fully formed vesicles. The part answerinng for both penis and vagina was attached to pelvis in same manner as is common to the male, but instead of coming forward to the centre of the belly, emerged about three inches lower than is common for the female, and was in length about two and a half inches, very much resembling a wattle that appears in some hogs on the neck.

This hog showed a strong propensity for intercourse, an in its efforts at coitus with female hogs had ejaculations, which would be, of course, backwards. Any one desiring to see the said parts can do so, as I have them in alcohol.

J. D. F. Lever, M. D.

Columbia, Richland county, S. C., December 12, 1884.

Substitute for Sulphate of Quinine.

Eds. Med. and Surg. Reporter:—

In ordinary cases in which sulphate of quinine is indicated, I am in the habit of prescribing, with satisfactory effects, the following combination of sulphate of cinchonidia, sulphate of cin-

chona, and McKesson & Robbins' powdered purified chinoidine, in the following formula:

℞. Sulphate of cinchonidia.
Sulphate of cinchona.
Powd. purified chinoidine. āā grs. xx.
Syrup, q. s.
Mix.

Divide into 20 pills. Dose, 3 pills every 2 or 3 hours as an ordinary tonic and antiperiodic.

As a cheap prescription for chills, I use the following:

℞. Sulphate of cinchonidia,
Sulphate of cinchona,
Powd. purified chinoidine, āā grs. xx.
Powdered aloes, grs. x.
Powdered sulphate of iron, ferri sulph. exs.
Powdered capsicum, āā grs. xx.
Syrup, q. s.
Mix.
Divide into 21 pills.
Sig.—Dose, 3 pills every 3 hours.

These pills I have found to be not only efficacious in arresting the chills, but a most excellent tonic in giving tone to the general system after the chills have been arrested; and for this purpose I required my chill-patients to continue them for a month or six weeks, to prevent a relapse.

A short time ago, I had among my patients a youth of eighteen years, with moderately severe typhoid fever. It lasted its usual period; and it appeared that the following pills assisted nicely in keeping up his strength:

℞. Sulphate of cinchonidia,
Sulphate of cinchona,
Powdered purified chinoidine, āā grs. xx.
Powdered sulphate of iron, exs.
Powdered capsicum, āā grs. xx.
Syrup, q. s.
Mix.
Divide into 60 pills.
Sig.—Dose, 2 pills every 3 hours.

This is a favorite pill with me in typhoid fever, and I have always found sulphate of iron, as above combined, a fine tonic in continued fever, and when I so treat it convalescence is not nearly so protracted.

J. B. Johnson, M. D.
Washington City, D. C.

News and Miscellany.

The Ideal Physician.

Professor Gairdner thus describes him:

1. He must be careful and accurate, and at the same time a keen and quick observer of nature.

2. He must be able to connect his isolated observations of fact by rapid, and at the same time trustworthy, processes of reasoning.

3. He must, in dealing with emergencies, endeavor to have always what the Greeks (and Dr. John Brown after them) called *ἀγχίνοια*—nearness of the *νοῦς*, *i. e.*, presence of mind.

4. He must, as a surgeon or accoucheur, have much deftness of manipulation—manual dexterity, as we call it; or perhaps still better, ambidexterity.

5. He must treasure in his memory, and be constantly increasing from day to day, large stores of various reading in his own and other languages, in order that not only past observations, but also the vast field of scientific progress in its relation to his art may be constantly before him, or at least freely accessible when wanted.

6. He must be able to write, at the very least, in his own language, with vigor, compactness, and lucidity.

7. He must have a soul above mere money-grubbing; must on no account degrade his profession into a trade; but must be, as far as is possible to human nature, the disinterested friend, the companion, the good genius, I had almost said, of all his patients.

8. For this reason, if for no other, he must in every case have in him the distinctive essence of what is called a gentleman; and if his practice is, or is ever to be, among what are called the upper classes, he must be a gentleman, not only in principle but in detail; not necessarily what is vulgarly and falsely often styled a fine gentleman, but a gentleman in outward manner as much as in the inner spirit.

9. He must be a man endowed with a deep sense of moral responsibility, so as to beget confidence and unfailing trust in him on the part of his fellow-men. Responsibility, therefore, to them in the first instance; but underlying that, and sustaining it as surely as the root and the stem sustain the flower—a deeper and more latent responsibility to him who is the source of all good, and, therefore, of all moral principle and moral responsibility whatever.

Syphilis in Russia.

A foreign exchange says:

The extreme prevalence of syphilis amongst the Russian peasantry has long been recognized by the faculty in the dominions of the Czar. It was asserted, a few years ago, by medical authorities practicing east of the Ural mountains, that all the inhabitants of certain Siberian villages were infected; but precise statistics, as far as syphilis alone is concerned, are not to be obtained, the district authorities massing together all cases of venereal disease in their returns of mortality and sickness. Dr. Tchistiakoff, of St. Petersburg, has recently published a valuable work on *Syphilis amongst the Peasantry;* and a contribution by a female practitioner, Dr. Sinaide Elzina, on the spread of syphilis amongst the wives and children of countrymen, appeared during the past spring in the *Vratsch.* Both these writers have personally inspected a large number of peasants. In 1881, Dr. Tchistiakoff inspected 25,050 persons, in thirty-seven villages, in the Government of Pensa, between Moscow and Samara; of these 1,184 were found to be syphilitic; 385 had condylomata; 352 gummata; in 447, the disease was latent. Dr. Elzina made similar researches in the Government of Toula, south of Moscow. Out of 3,316 children, 413 were syphilitic; and out of 2,159 women 314 had syphilis. In some villages from 32 to 52 per cent. were syphilitic. Out of all these peas-

ants found to be diseased, Tchistiakoff did not find one, and Elzina only one, case of primary sore. Notwithstanding this unfortunate condition of affairs, the general health and and strength of the peasants is said to be quite satisfactory.

Russian Universities.

The following are the figures relating to the Russian universities at the beginning of 1884:

1. St. Petersburg, 99 functionaries (of whom 48 were titular professors) and 2,052 students, the expenses amounting to 429,903 roubles.

2. Moscow, 103 functionaries (57 professors), 2,430 students, and 526,724 roubles expense.

3. Kiew, 105 functionaries (46 professors), 1,475 students, and 460,334 roubles.

4. Charcow, 89 functionaries (51 professors), 821 students, and 367,944 roubles.

5. Kasan, 109 functionaries (47 professors), 776 students, and 379,496 roubles.

6. Warsaw, 79 functionaries (45 professors), 1,003 students, and 293,106 roubles.

7. Dorpat, 65 functionaries (42 professors), 1,426 students, and 256,807 roubles.

8. Odessa, 52 functionaries (28 professors), 374 students, and 252,929 roubles.

There are also at the different universities from one to fourteen per cent. of "free auditors" who are aided or supported by bursaries and subventions. The library of the Odessa University is said to contain 92,454 volumes; that of Kasan, 103,170; Charcow, 103,704; Kiew, 145,032; Moscow, 190,440; Dorpat, 218,893, and Warsaw, 363,250.

A Great Catholic University.

The establishment of a great American Catholic university is now an assured fact. Miss Mary Caldwell, of St. Louis, has contributed $300,000 to start the fund for its endowment, and the Plenary Council, which accepted the gift with many thanks, has assurances from other wealthy Catholics in America and Europe that the $3,000,000 requisite for its complete establishment will be forthcoming. The Council appointed a committee, consisting of Archbishops Gibbons, of Baltimore; Corrigan, of New York; Williams, of Boston; Heiss, of Milwaukee; Ryan, of Philadelphia; Spalding, of Peoria, and Bishop Ireland, to have charge of the matter. Four laymen will be associated with them, one of whom will be Reuben Springer, of Cincinnati, and another Eugene Kelly, of New York. The seat of the institution has not yet been chosen, but it will be either New York, Baltimore, or Cincinnati. It is proposed that the scope of the university shall be very broad. The committee will meet very soon to decide upon the site.

Professor Tyndall on the Germ Theory of Disease.

The distribution of prizes to the successful students of the Harris Institute, Preston, was the occasion of an address by Professor Tyndall on three chief principles of modern science. The doctrine of evolution, the principle of the conservation of energy, and the germ theory of epidemic disease, were the important topics on which Professor Tyndall dwelt with all his well-known powers of oratory and exposition. To Professor Tyndall's right to discuss all these principles of science we can make not the least objection, but whether his complete acceptance of the views implied in the germ theory of disease may be regarded as a matter for congratulation or not, is possibly open to doubt. But it is hardly consonant with what is really known on the matter to assert absolutely that the germ theory is proved for all the diseases which the professor passed under review. We need only add that no new light was thrown on the question.

Artificial Impregnation.

This subject has been discussed, and has its advocates among a certain class of people. Some time ago we reported a case wherein a lawsuit was the result. We now note that the *Gazette Hebdomadaire de Médecine et de Chirurgie* reviews at length a new novel with the suggestive title of "Le Faiseur d'Hommes." The romance is nothing more nor less than a plea in favor of artificial impregnation; the *dramatis personæ* are a childless count and countess and a highly scientific physician. A certain abbé is also introduced, in order to fill out the religious side of the picture. Not to enter into the details of the subject, which are better suited for a treatise on gynæcology than for a popular novel, it suffices to say that the experiment is successful, the result being a son, who is afterward known at court as the "child of the syringe." But the most curious reading is the long and abstruse argument against artificial impregnation which the reviewer introduces into his article. We can liken it to nothing but the discourse on the seven deadly sins ascribed by Chaucer to his parson in the "Canterbury Tales." In fact, the writer's view of the subject from a medical standpoint is scarcely less fanciful than the novelist's.

The Admission of Hypothetical Questions to Experts.

In a recent case reported in the Supreme Court of Nebraska, where a physician was sued for negligence in setting a broken arm, and where the trial resulted in a vindication of his treatment of the fracture, there was an interesting argument as to the admission of hypothetical questions. The counsel for the plaintiff asked the following vague question: "A blow breaking the bone of the arm—the ulna—what tendency would that have as to dislocation at the wrist?" This question was excluded by the trial judge, and upon appeal this was held to be right. The court said that it was indefinite, and not confined to conditions like those under which the plaintiff was injured. Hypothetical questions must be so framed as to fairly reflect facts either admitted or proved by other witnesses.

Cheese Poisoning.

At the recent meeting of the Michigan State Board of Health, Dr. Baker continued his reports on this subject. Seven outbreaks within the State had been reported during the year, 190 persons having been affected in all, but none fatally.

The symptoms were very similar in all cases, consisting of pains in the stomach, muscular cramps, coldness of the extremities, and great prostration, with violent retching and purging for several hours. Specimens of the Lowell cheese had an acid reaction, and a peculiar strong odor, believed to be due to caprylic acid or caproïc acid. Examined under a one-tenth inch immersion objective, the cheese was found to contain the mycelium of a mould, and to be swarming with several kinds of bacteria in active movement.

The Powers of Health Boards.

The powers of health boards in cases of infectious diseases are matters of great public importance, and while the courts will sustain such boards in any proper use of discretionary power, if they go outside of the legal limits prescribed, their acts will not receive sanction. In a recent Massachusetts case the health board finding a case of smallpox too sick to be removed, seized the house where the patient was, alleging the right to do so, practically converted it into a hospital for several weeks. This action the court declared to be beyond the statute and unwarranted.

Items.

—English statistics show that about one infant in every thousand is insusceptible to vaccination.

—In the *Brit. Med. Jour.*, November 1, 1884, Dr. Donald Macphail reports an *ascaris lumbricoides* extracted from the umbilicus of a boy.

—The Syrian College, Beyroot, has tendered to Dr. W. P. Manton, of Detroit, the chair of Gynæcology and Obstetrics in the Medical Department of that college.

—Dr. Christopher Columbus Graham, of Louisville, Kentucky, recently celebrated his *hundredth birthday* in the enjoyment of a banquet tendered to him by his neighbors.

—Mr. William McEwan has offered to give $25,000 to the Edinburgh Medical School, provided $50,000 is raised from other sources. The sum of $75,000 is needed to complete and furnish the building.

—W. P. Horton, jr., of Cleveland, O., has inserted a few drops of the four per cent. solution of muriate of cocaine into the cavity of a sensitive tooth, and a few minutes afterward he used the dental engine without pain.

—One result of the sad death of Dr. Rabbette has been the invention of several forms of apparatus for sucking secretions from the tracheal wound. One of the simplest of these is made on the principle of a dry-cup with a rubber ball.

—According to a French authority, we can cure corns by saturating the stockings at the point covering the corns in a solution of phosphorus in olive oil (one part to three hundred); wear them as usual, and in fifteen or twenty days, it is claimed, the corns will have disappeared.

—Dr. Mullenhoff recently observed that in sealing honey-cells bees add formic acid to the honey by thrusting the abdomen, with the sting protruding and a minute drop of poison adhering, into the half-closed cell. The honey taken from sealed cells is said to be much more stable than that taken from unsealed cells, and Dr. Mullenhoff attributed this to a difference in respect to its contents in formic acid, which is known to be a powerful anti-ferment.

—In the *Gazette Hebdomadaire de Médicine et de Chirurgie*, M. Vigier gives the following formula of an ointment for pityriasis versicolor:

℞. Black soap, 100.00 grammes.
Powdered pumice stone, 50.00 "

Black soap; the writer explains, contains a considerable amount of potash; it forms with pumice a mixture having the consistence of simple ointment.

—According to M. Boursier (*Rev. de Thérap. Médico-Chir.*, No. 15, 1884), hydrate of therpylene possesses very marked antiseptic and deodorizing properties, and can be used for dressing wounds and for painting the throat in diphtheria. The vaporized fluid has a smell of turpentine, and is said to be an efficient agent for the disinfection of rooms. It is extracted by distillation from the buds of several sorts of pine.

—In the *Centralblatt für Gynäkologie* (May 3, 1884), Dr. Roth regards globus hystericus as due to a paræsthesia of the sympathetic. And as the pellitory root has been found useful in paralysis of the tongue and pharynx, the author was led to try it in globus. He gives from ten to twenty drops of the tincture of pyrethrum four times a day. He reports six cases in which he employed this remedy with satisfactory results.

—From the *Gazette des Hopitaux* we learn that at a recent meeting of the Surgical Society of St. Petersburg, Dr. Papow communicated the results of his experience with trichlorated phenol as a local application in erysipelas. The author reached the conclusion that the drug arrests the development of, or destroys, the micro-organisms upon which the disease is supposed to depend. He advised its application in a ten per cent. solution, to be brushed over the diseased part and the adjacent skin.

—Dr. R. S. Smith, in a letter to the *British Medical Journal*, cites three cases in which he has made careful observations as to the influence of the iodoform treatment upon the *bacillus tuberculosis*. In every case there were well-marked symptoms of phthisis—copious expectoration, rapid emaciation, and pyrexia, while the physical signs of consolidation were unmistakable. The sputa contained numerous bacilli. Iodoform was administered, in doses of one grain every four hours, and gradually carried up to two, three, and five grains, respectively. As a result of this treatment, the cough and expectoration ceased, there was a notable increase in body weight, and the physical signs were greatly improved. The bacilli, which had been noticed in such numbers at first, gradually disappeared from the sputa, until only a few remained. The writer acknowledges that these were selected cases, but he feels justified, from the evidence obtained, in assuming that iodoform really exercises a germicidal action upon the micro-organisms of tuberculosis.

THE

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

SUPPURATIVE ARTHRITIS—ITS CONSERVATIVE TREATMENT.*

BY C. B. NANCREDE, M. D.,

Professor of General and Orthopædic Surgery in the Philadelphia Polyclinic; Surgeon to the Episcopal and St. Christopher's Hospitals.

This paper in reality consists of the brief notes of a case of incised wound of the knee-joint, and the elaborate history of a second case of suppurative arthritis of the wrist-joint. For the history of the latter I am indebted to Dr. Ralph W. Seiss, the family attendant of the patient, to whose unremitting and intelligent care a large share of the recovery must be attributed. Instead of dilating upon the indications for treatment in cases of suppurative arthritis, I will simply let the histories of the cases speak for themselves.

On Saturday, March 25, 1882, I was asked to see J. P. R., æt. 28 years, a patient of Dr. T. S. Crowly. The doctor had first seen him on that day, and had at once directed them to send for me, recognizing the exceeding gravity of the case. J. R. had, the previous Thursday afternoon, cut his right knee with the corner of his hatchet, when the limb was strongly flexed, thus rendering the incision into the capsule non-coincident with that through the skin when the joint was in any other position than extreme flexion; in other words, the joint was opened in a so-called valvular manner. Owing to a nick near the corner of the hatchet, the weapon must have incised the capsule fully to the extent of a fourth of an inch. He at once tied a "chew of tobacco" over the wound, and did some light work until the evening, when he rode home. The next day he returned to his work, which happened then to be light, but unfortunately he walked home, about two miles, which caused enough pain and uneasiness in the joint to induce him to stop to rest several times before reaching home. That evening he still persisted in walking around, without experiencing much uneasiness, and, retiring early, was awakened by very severe pain in the joint, which was red and swollen. Chills, high fever, and slight delirium rapidly supervened. When I first saw him, the joint was filled with fluid, and the peri-articular tissues were swollen and reddened. Rest and ice with opiates utterly failed to control the symptoms, so that by Sunday night the patient was very ill, with a manifestly suppurating joint. Some synovia mingled with pus issued from the incision, both with and without pressure. Upon consultation with Prof. Ashhurst, I freely laid open the original wound upon a director, and then made a free incision upon the outer upper side of the patella, thereby giving vent to a quantity of purulent synovia. The patella came into contact with the femoral condyles, so that no extended search was made for the opening in the capsule. A poultice was applied and morphia exhibited. The next morning the joint had again filled up, but on a second visit the discharge had again found vent, allowing the patella to recede to its normal position. The whole lower half of the thigh and the region of the head of the tibia was converted, within a few days, into a series of ab-

*Read before the Philadelphia County Medical Society, November 19, 1884.

scesses more or less intercommunicating. Suffice it to say, that by free counter-openings, drainage-tubes, antiseptic injections, and immobility of the joint secured by splints and suspension from the ceiling, aided by a proper supporting regimen, with free stimulation, quinine, etc., the patient convalesced. Hot douching, massage and passive movement, in a few months brought the knee to a right angle, and now perfect extension and nearly perfect flexion have been attained. The members will see that the patient walks absolutely without any limp, with a freely-moving, normal joint, which never reminds him of previous trouble, except by passing fatigue, although he tells me that he has formed such a habit of "favoring" his knee, as to make him afraid to exert it much, unless he forgets all about it, when he uses it as freely as ever before. Such a result speaks for itself.

In this case there is no reason to doubt, that the immediate application of a compress and bandage in the form of the "chew of tobacco" and the handkerchief excluding the air, the ride home and the night's rest, all favored primary adhesion of the capsular wound. The next day's work, light as it was, with the walk home and the subsequent evening's exercise, doubtless reopened the recently-healed capsule, air was probably pumped in by the movement of the joint, and suppuration ensued. Perfect quiet of the joint from the moment of reception of the wound, its disinfection and antiseptic dressings, aided by cold, would doubtless have obviated all the subsequent danger and suffering.

I shall now read the notes relative to the case of suppurative arthritis of the wrist and inferior radio-ulnar joints, kindly furnished me by Dr. Seiss:

On April 24, 1884, I was called in the case of Mr. W., a large, powerful man, of splendid constitution, and perfect family history; a builder, he had led an active, out-door life, and had been of regular habits up to within a few years, since when he has been drinking somewhat heavily. One week before I saw him, while wrenching the stopper from a bottle, the neck broke, and the keen edge of the larger fragment, in slipping, cut the ulnar side of his right wrist, producing a wound down to the joint capsule, and about an inch in length. After allowing the free venous bleeding to continue some moments, he forcibly strapped the wound with many layers of court-plaster, applied over this a tight bandage, and then soaked the entire dressing with "Turlington's Balsam." To ease the terrible pain he suffered, he says he consumed about a quart of whisky in a single day, and almost as much the succeeding day. He was given calomel and a "fever mixture" by a local practitioner at Atlantic City, N. J., where the accident occurred, and some five days after the receipt of the injury, was removed by his relatives to Philadelphia.

When I saw him, his hand was encased in a clumsy poultice, on removing which I found the wound partly filled by friable granulations. On examination with a probe and my little finger, I conld plainly feel the capsular ligament, which appeared uninjured; the ulnar artery was also found to be intact; the motions of the wrist-joint were still free. His temperature was 103°; his skin clammy and leaking; tongue foul and coated; respiration hurried; pulse rapid and weak; mind clouded, with a marked tendency towards muttering delirium; his urine was found, on examination next day, to be loaded with albumen. The entire hand and lower forearm were covered with a fiery red blush; the hand was much swollen and puffy. I at once enveloped the entire hand and forearm in a dressing of laudanum and water, equal parts, and placed it upon a forearm splint. I put him upon two grains of sulphate of quinine every two hours, night and day, each dose to be followed by a half ounce of whisky in an ounce of milk—which was increased to three ounces of milk as soon as the stomach was found to bear well the first few doses. I also ordered him to be sponged daily with a solution of alum in alcohol and water.

For seven days after the adoption of the above treatment he grew steadily better, with less sweating, a stronger pulse and respiration, a lower temperature, and his mind was clear. On the evening of the seventh day, his temperature rose rapidly to 103°, and continued to rise, with slight morning remissions, until it reached 104⅓° on the evening of the tenth day. I then found a small abscess forming over the first and second metacarpal bones, which I at once opened by a free incision—permitting the escape of about half an ounce of creamy pus. He immediately improved, but shortly after commenced to have marked night-sweats, with great pain in the hand and forearm, requiring the frequent administration of hypodermic injections of morphia sulphate, to secure rest at night. About a week after the formation of the first abscess, I opened another, situated between the thumb and index finger, by a deep incision, giving vent to a thin glairy pus. This, however, produced but a slight remission of the symptoms, and he rapidly fell into a semi-typhoid state. A few days after the opening of

the second abscess, Prof. C. B. Nancrede saw him in consultation with me. The following conditions now obtained: Careful manipulation gave a slight sensation of grating, showing the presence of eroded bone; examination with a probe showed extensive destruction and separation of tissues, the hand being little more than a bag of bones; the wrist-joint was stiff, and gave distinct crepitus on motion. The original wound was covered with exuberant granulations. General conditions markedly septic and typhoid. A counter-opening was now made on the radial side of the wrist, a grooved director being passed through my incision over the second metocarpal, which had been kept freely open, directly through the opening. The pulsation of the bare artery (radial) could be plainly felt under the director. Upon suggestion of Dr. Nancrede, the hand was now enveloped in dressings of hydrarg. bichloride, one part to 2000 of boiled water, and three-drop doses of tincture ferri chloridi were given every two hours, in addition to the treatment already adopted. This caused a slight amelioration in the symptoms. Thorough drainage was maintained by the use of drainage-threads of ligature silk, and all the openings were carefully syringed twice daily with the hydrarg. solution. The quinine and whisky were continued, together with hot broths and concentrated foods of all kinds. His average morning temperature was now 101½°, his evening rise from one degree to two and a quarter degrees; pulse always rapid and feeble—from 98 to 119; respirations hurried, mind clear; took food willingly; had occasional fits of restlessness and pain, requiring hypodermics of morphia; some night-sweats; a trace of albumen constantly found in urine, but no casts could be found at any time. For two weeks this state of things continued, with little change for better or worse. Then commenced a train of markedly septic symptoms; lungs frequently congested; some cough; marked night-sweats; hurried pulse and respiration; furred and heavily-coated tongue; intense pain in hand; urine loaded with albumen; occasional, though rare, chills. Some fourteen days after the first consultation, his temperature began to rise steadily until it reached 105° on the sixteenth day after our first consultation, and he now failed so rapidly that I feared speedy death from exhaustion.

On the evening of the sixteenth day I discovered a deep-seated abscess over the distal ends of the ulna and radius. The same evening I again saw him with Dr. Nancrede, when the following operation was performed: Dr. Nancrede made a free incision over the abscess and dissected down on a director until the joint was reached; the latter was opened, and about a half ounce of pus allowed to escape from it.

On examination with the probe and finger, the articular surfaces of the inferior radio-ulnar joint were found to be deeply eroded. The bones of the proximal row of the carpus and the articular surface of the radius were also found to be softened and partially denuded of cartilage. A director was pushed through the radio-carpal joint until it could be felt under the skin and the dorsal aspect of the wrist, where a free counter-opening was made down upon it. The wound was now thoroughly syringed with the hydrarg. solution and a stream of the latter forced through the radio-carpal joint, moderately forcible extension being made to facilitate the passage of the solution. The hand was now most carefully cleansed with the antiseptic solution and antiseptic irrigation was used, the hand and forearm simply resting on a bed of raw cotton, covered by lint kept constantly soaked with the bichloride solution; the amount of whisky he had been taken steadily since I first saw him was increased, and the dose of quinine raised to twenty-eight grains per diem. The night of the operation he suffered intense pain in the hand, requiring two hypodermic injections of morphia, each of one-fourth grain, to produce quiet.

With the exception of one more small abscess on the dorsal aspect of the hand, which I opened, and its attendant symptoms, and a troublesome pressure-sore on his elbow, he now steadily improved. It having been found absolutely necessary to open the sheath of a tendon—palmaris longis?—in opening the joint, some slight trouble occurred from hernia of the tendon, it occasionally extruding to the extent of nearly two centimetres; it was carefully returned at each of the two daily dressings, and attempts made to keep it in place by a compress lightly applied. It perfectly returned to its normal position as the wound closed. A large amount of bloody synovia could be pressed from the sheath of this tendon at each dressing. In ten days he was able to sit up for a short time, and the doses of both quinine and whisky were now lessened. After some weeks of treatment with the bichloride solution, he exhibited marked mild mercurial poisoning, and carbolic-acid solution, one part pure crystals to forty-five of boiled water, was substituted. In three weeks the arm was put upon a wooden forearm-splint, still enveloped in wet carbolic-acid dressings, and he was able to move about his

room. About a week later he went downstairs for the first time. The quinine and alcohol were now reduced to tonic doses. The wounds were now completely blocked with healthy granulations; and, therefore, the wet carbolic-acid dressings were discontinued, the wounds being dressed with carbolized cosmoline—one to forty pure crystals—and later, with oxide of zinc ointment. Passive motion was now made for some minutes, night and morning. After some three weeks of this treatment, *thirteen weeks* after receiving the injury, he was able to leave the house for a short walk; and *fifteen weeks* after the accident he was able to go about and attend to his affairs almost as usual, wearing his arm on an accurately-moulded splint of binder's board, with the wounds entirely healed.

I now saw him but three or four times weekly, and at each visit thorough friction with alcohol on a handful of raw cotton, thorough massage and passive motion of the entire arm were practiced. The elbow was now exceedingly stiff, the shoulder-joint equally so, the wrist anchylosed, thumb almost rigid, only slight motion of the fingers. The binder's-board splint was now soon abandoned, and he was instructed to make constant efforts to move all the joints of his arm, forearm, and hand. I saw him weekly and made strong passive motion of all the stiffened joints at each visit.

At present, six months after accident, his condition is as follows: Weight, 185 pounds—being a gain of 26 pounds in about nine weeks — general health good; some neuralgic pain in injured hand occasionally; shoulder slightly stiff, deltoid muscle unable to lift it to normal height. Elbow stiff, but hand can be brought directly back to within eight inches of the shoulder—which, the wrist-joint being anchylosed, is almost normal. The forearm cannot be pronated nor supinated, save to a very slight extent. The wrist-joint, as a whole, has a slight degree of extension and flexion. The fingers have more than three-fourths normal flexion and extension, and that quite free. The thumb has its free movements, and is but very slightly stiffened. He writes, with the injured member, a very fair hand, and can continue its efforts long enough to write four pages of "legal cap" without rest. The hand can also be rapidly used for all ordinary purposes not requiring much strength. He feels changes in the weather badly in the entire right arm, but apart from this, the occasional neuralgia and a feeling of weakness and tenderness in the member, uses it as freely as the other uninjured hand.

In conclusion, I would again reiterate that free incision, drainage, and rest, combined with antiseptic treatment in its broadest sense, will, when judiciously followed by persistent passive movement and massage, often save not only life and limb, but an excellent joint, such as I show you in these two cases to-night.

THE LEGAL CONTROL OF MEDICAL PRACTICE BY A STATE EXAMINATION;*

BY JOHN B. ROBERTS, M. D.,

Of Philadelphia,

Professor of Anatomy and Surgery in the Philadelphia Polyclinic.

It is my intention this evening to briefly review the advantages that would accrue to the public and the medical profession by the enactment of a law placing the control of medical practice in the hands of a State Board of Examiners. As is known to many of you, a person who desires to practice medicine in Germany must pass a governmental examination. The students study in universities, and take degrees, but such degrees do not confer the right to enter upon practice. The health and lives of the citizens of the empire are believed too valuable to be imperiled by the acts of ignorant physicians. Hence, although the universities themselves are under the supervision of the State, the candidate for practice must, in addition to his university examination for a degree, pass a governmental examination for license, to follow professional work among the people of his vicinity. He is not a legally qualified practitioner until this is accomplished.

The recklessness with which medical legislation has been neglected in this State will be apparent when I say that the medical schools are under no State or Federal supervision whatever. They have entire control of the time and character of studies required from the intending practitioner, examine him upon the same, and confer the medical degree, which is at once accepted by the authorities as evidence of sufficient knowledge and skill to entitle the possesser to practice medicine, surgery, and obstetrics in the community. Still further, to encourage wholesale and unrestrained manufacture of physicians, the "doctor manufactories" are, I believe, even exempt from taxation.

Until the year 1881 there existed in this Commonwealth no law whatever regulating medical practice. At that time the law to provide for the

*Read before the Medical Jurisprudence Society of Philadelphia.

registration of all practitioners of medicine and surgery was enacted by the General Assembly of Pennsylvania. It effected much good, and was a distinct step forward, though it has, among other minor defects, the weakness that the possession of a genuine diploma is taken as evidence of knowledge.

As long as the medical schools of the United States are dependent for prosperity upon the number of fees received from pupils, and as long as examinations by the faculties who receive these fees are the sole test of skill, a diploma, even from the highest grade institution, carries with it little value as a diagnostic proof of professional learning. The old Latin proverb has it: "Caveat emptor," "Let the buyer beware." I say, "Caveat æger," "Let the sick man beware," if he believes that the fact of graduation from a renowned college confers intelligence and skill. The placard, "No reasonable offer declined," usually tells the buyer that inferior quality of goods is to be expected. Would that many colleges had the honesty to display a similar escutcheon over their portals, reading, "No reasonable ignorance rejected."

The step I advocate to-night is the creation of a Board of Medical Examiners, under State jurisdiction, which shall examine all persons desiring to enter upon practice in this State, after January 1, 1886, without regard to when, where, or how they obtained medical education. If such an examination by non-interested persons shows the proper qualifications, the candidate is to be furnished with a certificate, and is then registered in the Prothonotary's office as heretofore. Let the medical schools teach, examine, and grant degrees as at present; but let no one practice in this State who has not been examined by those who have no interest in passing or rejecting him. In other words, merely substitute for the diploma the certificate of the State Examining Board, as the requisite of registration.

The greatest advantage derived from such a law would be the protection of the public health from ignorant physicians. Bear in mind that I refer now, not to Indian medicine men, negro herb doctors and other charlatans, but to ignorant physicians, graduates of recognized and reputable schools of the United States and other countries; such as are duly armed with beautifully engraved diplomas signed by leaders of the profession, and, therefore, more dangerous to the community than a whole tribe of Indian "pow-wow-ers."

The United States government long ago adopted a similar plan of examining candidates for its army and navy medical services; so that at the present time its soldiers and sailors, even in distant territories and seas, have an average benefit of better educated physicians than citizens of New York, Philadelphia, or Boston. An army or navy surgeon receives his education in any school, but he enters the federal service only after an examination by a board who had nothing to do with teaching him, and who have no pecuniary interest in passing ignorant candidates.

A second advantage of the plan advocated is the improvement in registration that would take place. By the present law, persons who were in continuous practice for ten years prior to its enactment were allowed to register without diploma and without examination. Such persons, if any still reside in the State unregistered, or if any new ones come into the State, would by the new law be required to show their qualifications for practice by examination. This would be a gain, as it would exclude a certain proportion of uneducated persons.

Section 4 of the Registration Law requires persons coming into this State with diplomas from other countries or States, "to lay the same before the faculty of one of the medical colleges or universities of this commonwealth for inspection, and the faculty, being satisfied as to the qualifications of the applicant and the genuineness of the diploma, shall direct the dean of the faculty to endorse the same, after which such person shall be allowed to register." This imposes a considerable amount of work upon the medical schools, who, doubtless, would gladly be excused from this unpaid and uncongenial labor; for to reject the diploma or graduate of a neighboring institution lays the school open to unjust criticism. Moreover, the law does not state that the said colleges should be schools for under-graduates. Some months ago, application was made to me, as Secretary of the Philadelphia Polyclinic and College for Graduates in Medicine, for certification of a man's qualifications for registration under this act. Undoubtedly, post-graduate medical schools were not intended by the law, and I declined to act in the matter. Moreover, there are loop-holes in the Registration Law by which punishment for practicing illegally can be escaped. A notable case occurred, six or seven months ago, in Clearfield county, and is mentioned in an editorial published in the *Polyclinic* for March, 1884.

An exceedingly important result of the establishment of a State Examining Board in Pennsylvania would be the elevation of the standard of

education in the medical colleges of the country. Many citizens and prospective citizens of the Keystone State study in the colleges of New York, Maryland, Ohio, Michigan, and other States. As soon as it is known that no one can practice in this wealthy commonwealth unless he passes the State examination, such persons will study in the highest-grade schools, and in those whose graduates show the smallest percentage of failure before the Pennsylvania Examining Board. Hence if our schools are the best equipped and supply the best education, men will not pay their money to the teachers, boarding-house keepers, and merchants of other states, but will attend our own schools, and thus increase the business prosperity of Pennsylvania. The competition of low-grade colleges, whether in this or neighboring States, would not then tend to paralyze the efforts of institutions of high educational standard. There would be no longer a premium offered for quick graduation after two years' study and a five minutes' oral examination in each of seven branches.

Another indirect advantage would be this: that students could study in several institutions, and thus gain the benefit of hearing the foremost teachers of various schools, instead of being cognizant of the precepts of but one faculty. The former method of study is certainly the most elevating, as it broadens professional knowledge.

The division of labor resulting from examinations being held by a non-teaching board, having committees in different parts of the State, would make it possible to hold written and manipulative, as well as oral examinations, and thus do better justice to candidates than is possible by an oral examination alone. Again, the examinations not being held all at one time of year, would further accommodate intending practitioners and lessen the labor of the examiners. As it is now, the college faculties, with great inconvenience to themselves, and often with injustice to the pupils, hurry through the examinations of several hundred students in a few days. A gengleman, now dead, who was for years a professor in a large medical school, once told me of a case where a man who failed to pass his examination was actually graduated, because of a clerical error that occurred in the hurry of commencement time. Neither of us knew how many people owed their deaths to that accidental physician. Bright men may have been rejected by similar errors made in hasty examinations. The State Board examination would be conducted leisurely, and being partly written, would show by the records whether a man was unjustly rejected. He would also have the right to a public appeal from the report of the Board, which now he has not. The college examination is, as it should be under the present arrangement, the private business of a private corporation, and, therefore, sealed from public inspection.

Another advantage which deserves consideration, is the power of revoking a man's license to practice, which would be possible if a State Examination Board is instituted. His diploma cannot and could not be taken away, but his certificate of knowledge, character, etc., could be cancelled or withdrawn by the Board if he was convicted of criminal malpractice or similar crime.

The last reason for advocating the law is cogent; but to my mind deserves little attention, because it is a selfish one, which should influence us much less than those previously discussed. Such an examination would weed out and keep out of the profession those persons who, though ignorant of medical science, accept professional duties and emoluments, and thus increase the difficulty of an educated physician gaining a livelihood. There are, undoubtedly, too many physicians for the needs of the closely-settled districts. Fewer doctors, and better ones, would be a boon to most sections of the State. The State examination would effect both objects. The legal profession has, I believe, certain restrictions to indiscriminate admission to the bar. Why should not the medical profession have some similar protection?

Dr. Isaac Ashe speaks of districts in Scotland where sixpenny charges are made by physicians, and says he knows of an English town of 50,000 inhabitants, where one shilling charges are made for medical advice. ["Medical Politics," the Carmichael Prize Essay for 1873, p. 33.] He quotes from the *Medical Press and Circular*, of September 11, 1872, p. 216, the following charges adopted by a practitioner of thirty years' experience: "Midwifery, two shillings and sixpence; advice, sixpence; consultations, one shilling." Is there a barrister in England, or an attorney-at-law in Pennsylvania, who accepts such insignificant fees for professional services? Yet the position of the medical profession in Pennsylvania is little better than that mentioned in England. The poor estimate put upon medical service is due to the overcrowded state of the profession, and the inferior quality of much medical work; both of which conditions would steadily decrease after the initiation of a State examination.

That the medical profession desires the adoption of a State Examining Board, may be assumed

from the recent action of the Philadelphia County Medical Society. At a meeting of the present month, in which this and kindred educational topics were fully discussed by college professors and practitioners, both general and special, the following resolutions were offered. After postponement for printing and circulation, they were adopted :

"*Resolved*, That the Philadelphia County Medical Society believes that the status of the medical profession of this State will be elevated by the establishment of a non-teaching Board of Medical Examiners, whose certificate shall be the only one accepted by the prothonotary's office for physicians registering after January, 1886.

"*Resolved*, That the other county Societies of this State be requested to advocate the establishment of such a Board at the next meeting of the State Society, and to discuss the matter, prior to that meeting, with the members of the General Assembly resident in their counties.

"*Resolved*, That the Corresponding Secretary be directed to transmit a copy of these resolutions to the Secretary of each county society, with the request that immediate action be taken, and reported to this society.

"*Resolved*, That a committee be appointed to draft a law creating a State Board of Examiners for the examination of all persons for license to practice medicine, the said law to be presented at the next meeting of the Medical Society of Pennsylvania by the Philadelphia delegates to that meeting."

Having spoken of the advantageous action of a State Examining Board, I must hastily consider the objections that will be raised to its enactment.

It will be said that physicians living outside of this State, but near its border, are often called to attend patients in Pennsylvania. Very well, let them be examined by the Pennsylvania Board, and register in the county in this State nearest their residence. Shall a physician of New Jersey, Maryland, Delaware, New York, or Ohio, practice continuously in Pennsylvania without being subjected to the same examination as residents of this State? Certainly not. Those, however, who come into the State as consultants with duly licensed practitioners of this State should, of course, be excused from the State examination. So should dentists who do not practice medicine, whether residents or non-residents of the State. In the same manner midwives, who attend the very poor in cases of confinement, should be exempt from professional examination, though they undoubtedly should be registered and give some evidence of obstetric knowledge.

A physician changing his residence within the State would merely be required to register in his new locality, but would have to pass no second examination. Nor should those now legally registered and practicing be required to pass the State examination.

It will be urged as an objection that there are physicians who desire to practice special systems of medicine, and that such a State examination would exclude these from practice. Not at all. Let the Board examine all candidates on anatomy, physiology, pathology, hygiene, surgery, obstetrics, chemistry, and materia medica only, omitting theories of medical practice and therapeutics entirely from the schedule.

I have thus advocated, Mr. President and gentlemen, a measure which will, I believe, add to the wealth and prosperity of the State of Pennsylvania, and elevate the profession of medicine; for whatever elevates the latter must increase the former. The wealth of a community is the health and lives of its citizens. Every useful life saved, every illness shortened, adds to the public treasury. The educated physician may do both; the ignorant physician does neither. I pray you to aid in cultivating the one and eradicating the other.

1118 *Arch street.*

DOUBLE INGUINAL HERNIA IN A MALE INFANT THIRTY-EIGHT DAYS OLD—STRANGULATION ON THE LEFT SIDE—HERNIOTOMY.*

BY L. W. STEINBACH, M. D.,

Adjunct Professor of Anatomy and Surgery in the Philadelphia Polyclinic.

The subject of my remarks, a male infant, was born on September 2 of the present year, at the beginning of the ninth month of utero-gestation. During six weeks preceding labor the mother was confined to her bed or room on account of hemorrhages, due to partial placenta prævia. The infant was feeble and bore evidence of premature birth by its general debility, rather than by any specific sign of incomplete development. I estimated its weight at about five pounds. Within two days the child became jaundiced, but his condition otherwise, as well as that of the mother, was sufficiently favorable for me to cease paying regular visits after the tenth day.

On the morning of October 11, the father called and requested me to see the child, because it had

*Read before the Philadelphia County Medical Society, November 19, 1884.

been unusually restless during the night, and because the mother had noticed a swelling in the groin the previous evening.

Thinking that this swelling as described to me by the father might be a rupture, I visited the child without delay, and on rapid inspection found a deeply-jaundiced little patient, not markedly increased in size since birth, with a tumor in each inguinal region, so that the pubic region resembled a mons veneris, with the adipose tissue well developed. As this, however, was not likely to be the case in so poorly-nourished an infant, I continued my examination by manual palpation, and felt on each side a firm swelling, which reached up to the respective external inguinal ring, and extended obliquely downwards and inwards into the scrotum to the extent of more than two inches. The tumors were hard, and only slightly elastic, but in neither one could I locate the testicle or separate it from the rest of the tumor.

It will appear that the diagnosis must have been easily arrived at, because there are but few pathological conditions likely to be found in an infant that would resemble this, other than hernia, or perhaps hydrocele. Yet, fearing to exert pressure upon such tender structures in order to satisfactorily outline the testicles, I entertained some doubt whether I was really dealing with a case of double inguinal hernia, for which there existed the speculative causes of congenital debility, a patulous canal, and above these an impediment to the easy evacuation of the bladder in the existence of phymosis.

I informed the parents that I believed the child to be suffering with a double hernia, and that I would make an attempt to reduce it.

The amount of manipulation which I considered to be safe not having lessened the size of either tumor, and there being no urgent symptoms, I left, with the promise to return towards evening of the same day, with instructions to the mother to note carefully whether the child urinated, or had a fæcal evacuation. At my evening visit, I learned that the child had had no passage since the preceding day, that it passed but a small amount of urine, and was disinclined to nurse. I now renewed my attempts at reduction, and succeeded in returning the protrusion on the right side into the abdominal cavity, the testicle remaining in the scrotum. Only at this juncture did I become positive of my diagnosis. My exertions to reduce the tumor on the left side proved unavailing. In order to ascertain whether I could induce an evacuation of the bowels without endangering the child's condition, I inserted a small cone of soap into the rectum; this met with prompt response from that organ, and together with the soap a small amount of inspissated mucus, intermixed with, or rather discolored by, fæcal matter, was expelled. This convinced me that a constriction existed somewhere in the intestinal tract. Placing a small compress over the right external inguinal ring, and securing it by a bandage, in order, if possible, to prevent a recurrence of hernia on that side by straining in the act of micturition, I left my patient.

In the morning, and again towards evening of the following day, attempts made at taxis were unsuccessful. Constipation, scanty urination, and refusal to take the breast, continued until the third day, when I consulted with Dr. John B. Roberts, who concurrred in the diagnosis of strangulated hernia.

After some manipulation, which somewhat reduced the tumor in size, and seemed to relieve the symptoms, it was agreed to postpone operative procedure until more urgently required. Towards evening of the same day, the vomiting, which had existed before, became more pronounced, and the copiously-emitted substance, in its consistency, color, and odor, resembled fæcal matter.

About noon of October 14, and therefore the fifth day after the symptoms of hernia were first noticed, and when the child was just six weeks old, an anæsthetic (ether) was administered; and the last, but unsuccessful attempt at reduction having been made, I proceeded, with the material aid of Drs. Roberts, O'Hara, and other gentlemen, to perform herniotomy.

Making an extensive incision through the tegumentary structures, and subsequently dividing two additional layers of investment to the hernia, a sac was reached, which was hard to the touch and distended by fluid contents. A puncture of this sac, and evacuation of its sero-sanguinolent contents by means of a hypodermic syringe, caused its partial collapse, and a trial was made to return the protrusion into the abdominal cavity. This attempt proving ineffectual, the hernial sac was incised. This laid open for view a coil of small intestine of a purplish red hue, and below it the testicle and the epididymis. This last peritoneal investment was the tunica vaginalis testis, and consequently formed the true hernial sac.

Even now an obstacle to the retnrn of the intestine presented itself at the constricted neck of the sac. The tender age of the patient and the

delicate and small structures involved, necessitated the employment of the ophthalmic surgeon's canaliculus knife, in place of a Cooper's hernia bistoury, while a small grooved director served the purpose of a hernia director until an incision enlarged the opening to a sufficient extent to permit the insertion of Levis' hernia director. The hernia was of the oblique variety, and after extensive enlargement of the external inguinal ring over Levis' director, the intestine was returned into the abdominal cavity.

The interrupted wire suture was now employed; the first and second stitches, penetrating all structures from without into the abdominal cavity, approximated the edges of the external abdominal ring. A strip of rubber tubing was inserted, to favor drainage. The loss of blood was insignificant in amount. Antiseptic precautions were observed, by using a solution of corrosive sublimate for the hands, sponges, and towels, whilst the instruments were kept immersed in carbolized water. An existing phymosis, which was regarded a factor in the production of the herniæ, was corrected at the same time.

A few hours after the operation, the child had a normal passage; the urine which was voided contained a dark green sediment, which remained as stains on the napkin. The child took the breast readily, and appeared in no way to be disturbed by the operation. Primary union took place throughout the extent of the wound, and the drainage-tube was removed on the third day, after which the small orifice thus left also closed. No symptoms of peritonitis, or inflammation elsewhere, appeared; the pulse was better than before the herniotomy; the excretions continued regular, and everything gave promise of a favorable result, except that the babe did not gain strength, and the jaundice became rather more pronounced. On the fifth day after the operation, the child died, and I have good reason to believe the cause of death lay elsewhere than in the herniæ.

Not the rarity of the affection induces me to present this case to your attention, but rather my belief in the propriety of performing the operation even in so young an infant. I am not conversant with the literature of the subject, and do not know whether a few or many cases are recorded; but my observation of this one case causes me to make the deduction that the operation should be performed unhesitatingly whenever indications for it exist; and I believe that the more rapid reparative process existing in infancy gives an even more favorable prognosis than the same operation performed on the adult.

Hospital Reports.

ON THE TREATMENT OF ERUPTIVE FEVERS.

BY PROFESSOR DUJARDIN-BEAUMETZ,

Hospital St. Antoine, Paris, France.

(*Continued from page* 10.)

This is my mode of procedure: I apply thickly over the face the emplastrum *de vigo cum mercurio*, and over the whole I dust starch powder, and I take care, by new layers of pomade and starch, to fill in all the fissures and broken places which may afterwards appear in this mask. You will in this way succeed when, be it understood, you have applied this protective mask at the very commencement of the eruption, in causing the pustules on the face to abort, save only those around the lips and mouth, where the incessant muscular movements will be likely to cause the mask to break. In certain cases you may employ the ectroctic method of Serres and Velpeau; a method which consists in opening each vesicle and cauterizing it with nitrate of silver. This process, which cannot be applied to confluent eruptions, ought to be reserved for the pustules which develop on certain points, and in particular on the cornea. As you well know, these pustules may, in their ulterior progress, perforate the cornea and destroy the eye. I have myself seen several instances of total blindness, due to the negligence of the attending physician, who did not interfere in time.

On the part of the mucous membranes, your attention ought especially to be directed to the buccal cavity, where the eruption causes profuse salivation and a painful swelling of the isthmus of the fauces; gargles of Vichy water and chlorate of potassium often relieve these symptoms.

The fever has abated, the general symptoms have improved, and we come to the period of suppuration in patients who have not been vaccinated. Then there is reawakening of the fever, and the grave symptoms appear: in particular the swelling of the hands and the feet. It is to this suppurative period that the efforts of therapeutists have especially been directed. It constitutes the most critical stage of the disease, and it is at this period, more than at any other time, that patients succumb.

Earnest endeavors have, above all, been made to avoid the putrid infection which results from incessant contact of the denuded derm with the pus which bathes it on all sides, and various antiseptic preparations have been used. Chauffard thought that he had found in phenic acid an abortive and curative treatment for confluent variola; Guipon, on the same principle, proposed perchloride of iron; and Jenna, of Buenos Ayres, spirits of turpentine. All these medications have been abandoned, and the profession has returned to local treatment, and in particular to baths and lotions of disinfectant substances, which render us great service, and which I earnestly recommend. These baths should be of a temperature of 95° F., and you should add to the water of the bath chloral solutions of thymol or antiseptic vinegar, and in particular that of Pennés.*

*Disinfectant baths and lotions are prepared in numer-

Their duration should be from half to three-quarters of an hour, and you should have care during the bath to give some stimulant, as rum punch.

I have said nothing of cold baths, which have been employed in the treatment of small-pox by Konig, Winternitz, and by Clement, of Lyons. These cold baths have quite another object, that of combating the hyperpyrexia; and although this practice goes back to Rhazes, it does not seem to have commended itself by its results, and for my part I have no experience with it.

To these local measures we must add the use of disinfectant powders, such as compounds of salicylic acid and starch or talc, as employed by Baudon, and painting with tincture of iodine, as practiced by Boinet, Delioux of Savignac, and Pioch. These dressings, joined to the baths and disinfectant lotions, enable you to rid the patient of the sickening odor which he exhales.

But there is a danger still more formidable than that from purulent absorption. I refer to the cardiac complications. Disnos, Huchard, and Bronardel have given us a faithful picture of the variolic endopericarditis and myocarditis, and have indicated the cause of those sudden deaths which in old people attend the stage of suppuration. It is these troubles in the myocardium which explain the feeble pulse and the anæmic delirium which are also noted in this period, symptoms which we need to combat by tonics and stimulants, especially opium and ether.

Our colleague, Du Castel, has shown us the advantages which we may derive from this ether-opium treatment, and I have myself obtained good results from it in the care of small-pox patients in this hospital. You can employ the ether in subcutaneous injections, being careful to insert them as deeply as possible; as for opium, you can give from two to four grains a day in divided doses of the extract. Or, you may adopt the mode of administration recommended by Constantin Paul for the delirium of febrile diseases, and give every hour or two ten drops of laudanum. To these means you should add alcohol in all its forms; also coffee, caffein, the preparations of cinchona, in a word, all the agents of the tonic medication.

The period of desiccation has arrived, and to hasten the falling of the scabs, you should use soap-baths and inunctions with vaseline, that pomade of mineral origin which renders us such service every day.

It is at this period that vast purulent collections form, and your attention should be called to this fact, for these abscesses ought to be opened early. There will also be an indication to endeavor by a substantial dietary regime to repair the profound alterations which the disease has left behind it.

Such are the principal therapeutic rules applicable to the treatment of small-pox, and I pass now to the treatment of scarlet fever.

Scarlatina, unlike variola, has no prophylactic treatment, for nearly all attempts to prevent this disease by inoculation have failed.*

Impotent to combat the invasion of the disease by vaccination, some physicians have pretended to be able to prevent it by prophylactic medication, and taking as their basis this strange notion that since the ingestion of belladonna gives rise to a scarlatinous eruption, it must therefore cure scarlatina, and following in the wake of Hahnemann, they have proclaimed belladonna as both curative and prophylactic. To-day this question is absolutely settled, and all are agreed in regarding this pretension of the specificity of belladonna as illusory.

Moreover, I regard scarlatina as the least contagious of the eruptive fevers (it is so, at any rate, in Paris), and the small number of scarlet fever patients that we receive into our wards have seldom or never given the disease to other patients. You know, moreover, how different is the mortality of scarlet fever according to the country in which it prevails; and while in England epidemics of this disease are characterized by their gravity, in France, and particularly in Paris, this affection is almost always isolated, and is dangerous principally by the complications which may arise during convalescence. I shall then be very brief concerning the therapeutic indications which the question of treatment suggests.

In the period of invasion, which is generally very short, you may employ sudorific ptisans or teas, liquor ammoniæ acetatis, and especially carbonate of ammonia, which has been vaunted by Peart, by Wilkenson, by Strahl, and by Ricken, of Brussels.

During the period of eruption the indication is to diminish the dryness of the skin, and facilitate desquamation by inunctions made with fatty substances. Some, as West, employ lard, others bacon fat. Scoutetten recommends sweet oil. I am in the habit of using vaseline, which does not oxidize or become rancid. You will do well, then, at the period of desquamation, to practice frequent inunctions of vaseline over the whole body, both to hasten the fall of the epidermic scales, and to protect the skin from exterior agents. This state of

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ous ways. Delioux, of Savignac, employs baths of hypochlorites, which consist of water containing in solution between three and four ounces of hypochlorite of sodium for a full bath, but he prefers tar-water baths (about three gallons of tar-water to a full bath). You make the chloral bath by adding to the water of the bath three ounces of chloral.

The antiseptic vinegar of Pennés is made as follows:

℞.	Acid, salicylic,	3 parts.
	Acetate of aluminum,	3 parts.
	Concentrated tincture of eucalyptus glob.,	10 parts.
	" " of vervain,	90 parts.
	" " of lavender,	10 parts.
	" " of benzoin,	1 part.
	Acetic acid of 8 degrees,	10 parts.

M.

For a full bath add about three ounces of the above solution.—(Pennés' vinaigré antiseptique, Bull. le Ther. t. xcii., p. 426.)

*Inoculation for scarlatina was attempted by Miguel, Mandl, Petit-Radel, and Most. Miguel made use of blood taken from the scarlatinous patches, and he saw produced around the punctures a red circle, which disappeared the seventh day. These subjects of inoculation are rebellious to scarlatina. Leroy, of Etiolles, witnessed the same results after inoculation with blood from a scarlet fever patient. Mandl has advised inoculation with the product of the miliary vesicles which accompany scarlatina. Darwin practiced inoculation with the liquids furnished by the ulcerations of the pharynx. As for Most, he proposes the inoculation of blood taken from swine affected with a sort of quinsy, accompanied by an erysipelatous eruption. (*a*)

(*a*) Miguel d' Amboise, *Bull. de l'Acad. de Med.*, 9th September, 1834. Leroy d' Etiolles. A study of the preventive treatment of scarlatina by belladonna and by inoculation (*Gaz. Hebd.*, 1878), *Sanné. Art. Scarlatina in Dict. Encyclop. des Sc. Med.*

the skin is, as you know, one of the sources of danger during convalescence, by reason of the renal complications which may arise; you ought then to insist upon the greatest precaution during the period of convalescence, and keep the patient for six weeks in his room, and generally one month in bed, and never allow him to go abroad till there shall have been complete renewal of the epidermis. You can aid this process of reparation by warm baths while the epidermis is scaling off.

I shall not speak here of the pharyngeal complications of scarlet fever; you are familiar with the morbid determinations of this disease to the throat, whether it consist in a pultaceous angina or in a veritable diphtheria, according to Archambault's views, who unites scarlatina and diphtheria in the same description; the same treatment is proper for both, and I need not here repeat what I told you when on the subject of diphtheritic sore throat. But there is another complication which ought to occupy us a few minutes. I refer to the nervous manifestations which accompany certain scarlatinous eruptions, and which are tributary to a treatment to which Trousseau has devoted one of the finest passages of his clinical lectures—I refer to the treatment by cold affusions. Recommended by Currie, this method is become to-day classical, and in the practice of certain physicians, particularly the Germans, it is employed indiscriminately in all cases. Here also as in all the applications of the refrigerent method, it is rather against the manifestations on the part of the nervous system than the elevation of temperature that these cold affusions can render service; and you will not need to put this mode of treatment in practice, unless there shall supervene at the commencement of the period of eruption, ataxo-adynamic phenomena of great gravity. For my part I have never found, since I began the practice of medicine, cases of scarlet fever sufficiently grave and menacing to require such treatment. Scarlatinal dropsy does not offer any special therapeutic indication apart from that which I enunciated while on the subject of the treatment of albuminuria; and without dwelling longer on antiseptic medications proposed for scarlet fever, I pass now to the treatment of measles.

This very contagious, but little dangerous malady, unless by the complications which may arise, does not present any very special therapeutic indications, and treatment should be directed rather to the morbid manifestations determined by the disease than to the disease itself. I shall then say very little on this subject, and you will have to apply here only the general hygienic and therapeutic measures proper to all the eruptive fevers, and which consist in warm sudorific ptisans, as well as the greatest care to prevent all exposure to chills, and in attention to the thoracic organs, so that you can interfere in time if any pulmonary complications manifest themselves.

I have now the therapeutic indications, which I desired to give you for the management of the eruptive fevers.

These lectures complete the course on which I had determined; and incomplete as they are, they will furnish you data of a practical kind concerning the principal diseases which, in our country at least, you will be oftenest called upon to treat.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

(*Concluded from page* 15.)

A Case of United Fracture of Both Bones of the Forearm.

Presented by Charles Meigs Wilson, M. D.

This specimen was taken from an arm, amputated about the middle of the humerus. Eight months previously the girl had fallen from a window and sustained an oblique fracture of the ulna and radius—that of the ulna being about an inch and a half, and that of the radius two inches and a half below the elbow joint. The arm was the seat of several large ulcers, and many sinuses were present. The probe detected dead bone. The specimen shows that there has been no attempt at union in the radius, but that the comminuted fragments being attached to periosteum, have not been destroyed. There has been slight union of the ulna. The cartilages have been destroyed. The joint contained pus, and the internal condyle of the humerus showed a carious condition. The patient made an excellent recovery after the operation.

Case of Multiple Ovarian Fibro-cysts with Sub-Peritoneal Fibroids, and General (Tubercular) Peritonitis.

Presented by Dr. H. M. Fisher.

Barbara K., æt. 40, married, born in Germany, was admitted to the Episcopal Hospital early in July. Her father died of a tumor in the axillary region, one sister of paraplegia at the age of 16, and one brother and one sister are still alive and healthy. She married early, and had three children. Of these one lived but one day, one died at the age of 12 of "dropsy," and the third (a boy of 18) is still living. Two weeks after the birth of the last child she was obliged to get up and make severe muscular exertion, actually laboring in the fields. Soon after this she noticed that she was losing blood *per vaginam*, and that she could no longer nurse her child. This bleeding appears to have recurred at intervals of two weeks for a year or more, and often amounted to a positive hemorrhage. Notwithstanding that this was the case, and that she had occasional attacks of severe pain, she continued to work as usual, until three or four years ago. Three years ago she came to this country. At about this time she noticed a lump in her left groin, and from this time her abdomen steadily increased in size, she was seldom entirely free from pain, her appetite failed, and her bowels were habitually constipated.

Status Præsens.—Patient is anæmic, and has a careworn, haggard look. Abdomen much distended. Distance from xiphoid to umbilicus two inches greater than from umbilicus to symphysis. Percussion clear over abdomen anteriorly, dull in flanks, and fluid moves freely with patient's movement. Hepatic dulness begins in third interspace in mammary line, but not apparently increased in width. Examination of heart reveals a faint systolic apex murmur; examination of lungs gives negative result. Much dyspnœa. The dyspnœa becoming urgent, she was (July 14) tapped in the median line, two inches below um-

bilicus, and eight quarts twelve ounces of a straw-colored fluid, rich in albumen, were removed. Immediately after the tapping, an exceedingly hard mass was noticed in the left iliac region, apparently of the size of a turkey's egg. On the 23d she complained of much pain in the left leg, and the tissues were noticed to be œdematous. This œdema was only slightly relieved by several punctures which were then ordered to be made. From this time till her death patient complained much of dyspnœa, hypogastric pain, and obstinate constipation. She was tapped time and again, and on each occasion a large amount of straw-colored fluid was removed. September 21st patient had a sudden attack of severe dyspnœa in the evening, and died in ten minutes. The post mortem examination was made by the resident physician, Dr. J. K. Mitchell, sixteen hours after death, who furnished me with the following notes:

"Drew off fourteen quarts of fluid from the abdominal cavity by trocars and canula, all clear and straw-colored. On reinserting canula, a small quantity of dark-brown fluid, looking like beef tea, came through. The belly-walls were very thin; peritoneum everywhere much inflamed; whole intestinal surfaces and peritoneum covered closely with small whitish or pinkish points of tubercle; glands not very much enlarged, but very hard; omentum as thick as one's hand, and of an almost wooden hardness and stiffness. Liver and kidneys apparently perfectly healthy. Two cysts in the broad ligaments of the uterus, one about the size of a base ball, or a little smaller, the other still smaller. One had been tapped by the canula, the other contained about four ounces of the same brown 'ovarian' fluid. The ovaries, macroscopically, seemed healthy, and the uterus was normal in size and position. The lungs, though much compressed, showed no signs of disease and no adhesions. The heart had also been forced with the lungs upwards; otherwise nothing wrong with it."

A subsequent examination of the specimens brought the following facts to light: The uterus is decidedly hypertrophied, measuring about four inches internally, and appears abnormally hard. Closely attached by false membranes to the lower part of the body of the uterus upon the right side there is a *hard fibrous nodule* of the size of a pigeon's egg. A somewhat *larger mass of similar character* is seen higher up and to the left of the uterus. The right *ovary* is enveloped in false membranes and closely adherent to the fundus of the uterus. The left Fallopian tube opens directly into the larger cyst, of which mention has been made above. This has at its base a fibrous nodule (about $2\frac{1}{2} \times \frac{3}{4}$ inches), which is covered on its under surface by a mass of false membrane. (This is probably the mass that was detected during life in the left inguinal fossa.)

In addition to the cyst above-mentioned there were two other much smaller cysts, but found it impossible to make out the exact relations of these to the other cysts, without making a careful dissection, and this I failed to make. None of these cysts appeared, however, to be connected, as was stated above, with either broad ligament. The left broad ligament was found to be perfectly free; the right was wasting, but appears to have been removed during the autopsy, or subsequently.

The case is a complicated one, but the sequence of pathological events appears to have been the following: The patient having made severe muscular exertion a fortnight after confinement, is attacked by perimetritis and metritis. This inflammation, at first acute, soon becomes chronic in consequence of patient being unable to get proper care and the rest that she required. Whether the subperitoneal fibroids, from which she was found to have suffered, had been already developed at the time this acute pelvic inflammation occurred, it is impossible now to say; but it is probable that they were of later development. Coincident with the periodical hemorrhages and attacks of pain that the patient now suffers from, fresh portions of the pelvic peritoneum are invaded. Finally, the peritoneum adjacent to the ovary is reached, and a perioöphoritis is the result. The inflammation of the peritoneal investment of the ovary extends, as Heitzmann states, to the ovary itself, causing a proliferation of connective tissue in the cortex of the organ, and from here to the adjacent connective tissue stroma. In this way the bursting of a ripened follicle may, as he says, be prevented, and a path may be opened for the formation of an ovarian cyst. Supposing this to have occurred in this particular case, we may easily see how the connective tissue proliferation may have gone on hand in hand, as it were, with the cystic degeneration of the ovary, until the whole ovary was converted into the multiple fibro-cyst that we see in the specimen.

The inflammation extended but slowly from the pelvis to the general peritoneum; probably because the products of inflammation were for a long time, in great measure, circumscribed by false membranes. Little by little, however, these products were taken up by the lymph channels, until finally the whole peritoneal surface was infected by them. The occurrence of general peritonitis probably did not antedate much the occurrence of the abdominal dropsy, three years ago, as before that time the patient, though occasionally incapacitated for work by pain, was still able to attend to her usual occupations during the greater part of the time.

Thursday evening, September 25, 1884. The President, James Tyson, M. D., in the chair.

Dr. Guy Hinsdale exhibited a

Phantom Brain.

The model is constructed in colossal proportions, and is intended to show the course of the fibres in the human brain, and their relation to the several nuclei and the spinal cord. This preparation has been recently purchased for the Mütter Museum of the College of Physicians, and was constructed by Buechi, of Berne, Switzerland, under the supervision of Prof. Aeby.

The height is 125 cm.; its width, 70 cm. The cortex is dotted over with numerous corks 2 cm. long, which are distributed in systematic order. The basal nuclei, of a much larger size, are seen in their appropriate places. The spinal cord, made up of ganglia and columns of wires of different colors, is represented throughout a portion of the cervical region. These columns of the cord, of different colors to distinguish their function, lead to their appropriate ganglia, of corres-

ponding color, or to the areas in the cortex, which are marked by similarly colored corks.

Taking first the anterior and lateral columns of the cord painted red, we can trace these motor fibres to the anterior and lower portion of the medulla, where they decussate, through the pons, to the internal capsule, where, between the caudate nucleus oft he corpus striatum and the optic thalamus, they radiate to the cortex. They are seen to come chiefly from the convolutions about the fissure of Rolando. Where red balls are seen, from that point a red, motor, fibre descends to the anterior or lateral columns. It will be seen that the column of Türck, or direct pyramidal tract, is in relation with the posterior part of the lateral column of the opposite side. As regards the exact localization of the sensory and motor tracts of the spinal cord, there is still some discrepancy of opinion. Prof. Ferrier states that the antero-lateral columns are usually regarded as the chief motor paths, but quotes the recent and careful experiments of Ludwig and Woroschiloff (1874), who place the motor paths in the lateral columns only. The anterior columns (of Türck) are regarded more as commissural connections between the motor nerves and adjacent segments, and not at least the direct paths of motor impulses proceeding from the brain.

Tracing the fibres of the posterior columns, colored blue, we find them represented as wholly decussating in the medulla, forming the posterior third of the internal capsule, and passing to the corpora quadrigemina and optic thalami, colored blue, which are the great centres of sensation.

The external portion of the lateral columns, colored green, are seen to lead to the cerebellum, decussating near its superior surface. The yellow fibres of the model place the basal nuclei in communication with the cortex; the white fibres, constituting the corpus callosum, are purely commissural. The columns of the cord as represented in the model correspond precisely with the arrangement given by Flechsig, and endorsed by Charcot and Hammond. Ludwig and Woroschiloff argue that "a vicarious interchange of function potentially exists between different parts of the cord." Ferrier* admits that in determining the course of the cerebral fibres, anatomy reveals very little, and that physiological experiment is practically the only means at our command. Many more observations and experiments will have to be made before it can be said that the sensory and motor paths have been exactly defined and all views reconciled.

A Case of Infantile Mollities Ossium.

Presented by Dr. Charles Meigs Wilson, for Mr. Clinton Dent, of St. George's Hospital, London.

This specimen was sent to me by Mr. Dent, the well-known editor of the English edition of Billroth's Notes on Clinical Surgery. The following history was also furnished by Mr. Dent:

"This specimen shows the inner vertical half of the right femur of a child æt. 16 months. There is a pseudo-fracture of the bone. The medullary canal is filled up, and a considerable deposit of enveloping callus maintains the fragments in apposition. The entire bone is unnaturally soft, and in the recent state showed this peculiarity still more strongly. The bone was removed *post-mortem* from the body of a feeble, ill-nourished child. No history of syphilis could be gotten from the parents, and the child showed no evidence of congenital syphilis. Some of the ordinary symptoms of rickets were observable, *e. g.*, bending of the ribs, general tenderness, enlargement of the wrists, etc. No symptoms of scurvy were present. It was evident that there was much more than rickets in the condition. When the child was first admitted to the hospital there were pseudo-fractures of the right humerus and left tibia, besides the fracture of the right femur. The humerus, which was bent at a right angle, was forcibly straightened. It bent like a bar of soft metal, and remained in its new position. It was, however, put in a light pasteboard splint, Subsequently, with the removal of the splint, the bone again gradually bent, and was again forcibly straightened. While in the hospital under observation, the femora became affected in the usual place, *i. e.*, a little below the trochanter. Some swelling ond tenderness was noticed, and then, although the child was kept constantly in bed, the bones became bent; ultimately, in about ten days, the pseudo-fractures became complete. Great improvement of general health, as evidenced by rapid increases of weight, resulted from treatment of rest, good diet, and cod-liver oil. The child finally died from an attack of whooping-cough, after having been under observation a few weeks."

This is a very rare form of bone disease, especially in the young. It is seen occasionally in England—never with us. The pathological changes seem to be of a retrograde chararcter. Sometimes lipomatosis takes place. Sometimes there is a metamorphosis first to cartilage and then to embryonic tissue. This specimen shows, in different portions, both changes. The disease is attended with marked fatality. In this specimen the cortical substance is attenuated, and the medullary cavity is enormously enlarged. The bone seems deficient in lime salts. Some authorities believe that the lactic acid found in the chemical analysis of such bones is accountable for this; this fact is mentioned in order to elicit discussion. Other observers have found enormous quantities of oxalate of lime in the urine of patients with malacosteon bones. One curious fact is the effort which nature makes to repair the fractures, as shown in this specimen. This callus seems deficient in inorganic matter, and eventually becomes reabsorbed. Syphilis, scrofula, and scorbutus, have all been assigned as causes of the affection. Most authorities deny the existence of the disease in children, assign it to middle life, and speak of it as being lighted up or aggravated in women by pregnancy.

* Ferrier. Functions of the Brain, p. 5, London, 1876.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, December 4, 1884. The President, R. A. Cleemann, M. D., in the chair.

Ovarian Tumor.

Dr. Drysdale presented a polycystic ovarian tumor which he had removed that morning. He

had first seen the patient with Dr. C. R. Prall, May 5, 1884. She was a married lady, fifty years of age, pale, thin, and delicate-looking. She had had eight children, the youngest of which was then sixteen years old. With some trifling exceptions, her menstruation had been perfectly natural until two months before; since then she had had a constant and, sometimes, profuse discharge of blood from the vagina, which still continued. She first discovered the tumor in March, 1884.

On examination, Dr. Drysdale found a semi-solid, smooth-walled, globular tumor occupying the lower part of the abdomen and reaching nearly to the umbilicus. It was freely movable, did not fluctuate, but was elastic and a little tender to pressure. Vaginal examination revealed a lacerated cervix. The sound entered the uterus two and a half inches, taking a direction to the right of the tumor. On deep pressure, the end of the sound could be felt at the lower part of the right border of the mass. While the sound was in the uterus the tumor could be moved freely without affecting it. Dr. D. diagnosticated a multilocular ovarian tumor.

By the 5th of June, one month later, it reached nearly to the ensiform cartilage. From this time it increased rapidly in size, and when it was removed, filled the abdomen, pressing the lower ribs outwards. It proved to be a multilocular tumor of the left ovary.

His object in bringing it before the Society was to obtain an opinion from the members as to the cause of a phenomenon which was observed in the early stage of the growth. When the patient first noticed the enlargement, she found that when she would be on her right side, the tumor, as if lighter than the surrounding parts, would ascend to the left, and when on her left side, would rise to the right. She informed Dr. Prall of this, and he naturally supposed she was mistaken; but a careful examination of the tumor while she changed her position verified her assertion. As the mass increased in size, this peculiar change of position ceased, and when the abdomen was opened, nothing could be found to account for the singular behavior of the growth.

Dr. Parvin inquired about the length of the pedicle and the weight of the tumor.

Dr. Da Costa has a case under observation in which the condition of great mobility is present.

Dr. Drysdale replied that the pedicle was extremely short. The tumor weighed thirty-five pounds, and was multilocular in character. At the time of its removal he could not determine any fluctuation. Every parovarian cyst is movable in its early stages. He intended to call attention to the peculiar, and to him unaccountable motion of this particular cyst.

Dr. Charles Meigs Wilson presented the histories of three cases in which the hydrochlorate of cocaine had been used, with the hope of obtaining local analgesia, and reported negative results.

Malignant Disease of Ovaries, Cystic.

Dr. D. Longaker exhibited the specimens, with the following history: The subject from whom this specimen was removed was a German woman, 63 years old. She had been married the last twenty-seven years of her life, and was sterile. During the last five months she was under the care of Dr. Joseph S. Gibb, of this city, at whose request I first saw her, and by whose kindness I am enabled to report the case. The menopause was established at fifty-three—ten years ago. The patient had always enjoyed fair health, but four years ago she again began to have a bloody discharge from the vagina. For this she consulted a doctor, and was soon well again. The date of the onset of her last illness was indefinite. It was insidious, and the particular symptom for which she desired relief was inability to micturate; this was found to be due to suppression of the secretion of urine, as the bladder was empty. There was also decided interference with nutrition. Her appetite and strength failed rapidly. The urine was found to contain a very small amount of albumen. She had occasional nausea, and bilious vomiting, and diarrhœa. She suffered with pain in the left side of the abdomen. On examination, the doctor discovered a hard tumor, nodulated, to the left of the uterus, projecting upwards into the left inguinal region. It was adherent, and but slightly movable. She was first seen by me on October 6th. At this time she was in bed, suffered from orthopnœa, and was unable to rest or lie down. Her abdominal cavity was greatly distended by a fluid which had accumulated rapidly in the previous three or four weeks. Œdema of the ankles had been noticed a few days before. Her general appearance was decidedly anæmic and cachectic. The abdomen was very tender to palpation, especially over the left inguinal and hypogastric regions. The flanks were bulging, and were flat on percussion. The tumor could be indistinctly outlined, immobile, lying in contact with the left ilium, dipping down into the true pelvis behind and to the left of the uterus and distinct from it. The cervix had undergone senile absorption, but from the os externum a small polyp was hanging in the vagina. October 7th she was tapped; a large bucketful of a brownish-red fluid, of specific gravity 1020, was removed. On microscopic examination it was found to contain blood and various corpuscles and epithelium. (The ovarian cell was not found.) It contained paralbumen.

A more careful examination now revealed a circumscribed, clearly-defined, firm, nodulated growth in the region already indicated. It was found adherent, and could be only slightly displaced. It was of the size of a large fist. Palliative treatment was continued, but the patient's condition gradually grew worse. There was again a slight accumulation of fluid in the abdominal cavity. She was subject to attacks of bilious vomiting and diarrhœa, alternated with constipation, There was no apparent increase in the size of the tumor, and during this period pain was not a marked symptom. At no time was there acute suffering. She died of exhaustion November 27.

Autopsy on the next day by Dr. Gibb, in the presence of and assisted by Dr. E. W. Holmes and myself. The subcutaneous fat had been almost entirely absorbed. The parietal peritoneum was covered with lymph, with numerous nodular elevations in various stages of organization. The intestines had contracted numerous adhesions.

The capsule of the liver was one-eighth inch thick. In the mesentery there were also deposits of lymph, some of which were more recent and less organized. The abdominal cavity contained about two quarts of fluid, the same as that already described.

On the left side, extending two inches above the pelvic brim, was found a tumor apparently solid, but which on close examination was found to be cystic. One of the largest of the cysts had ruptured; the opening was found at the posterior inferior portion of the growth. It was not recent. The capacity of the emptied cyst was about four ounces. The tumor dipped down into the true pelvis between the broad and the utero-sacral ligaments of the left side. It was very adherent, and was removed with great difficulty. On incising and freely opening the cyst, some coagulated fibrin was found, the remains of a hemorrhage into the cavity. When it was entirely removed, it was found to arise from the left ovary. The oviduct was slightly dilated, and its fimbriated extremity was adherent to and spread out over the tumor.

On the right side, in the broad ligament, there is a cyst slightly larger than the tumor. Its contents are dark and very dense. It is very heavy. The cyst is surrounded by a dilated fallopian tube, containing a clear transparent fluid of a bluish-white hue. At its widest part it is an inch in diameter. Behind and below this cyst is found the right ovary; it is adherent, flattened out, and seems continuous with it. The entire specimen was carefully dissected out as it is shown. From its rapidly fatal tendency, with the macroscopic appearance of the tumor, there is very little doubt that a microscopic examination will reveal it to be malignant. Though perhaps possessing the greater pathological interest, there are also a few points in the case which may concern us in regard to diagnosis and treatment. Study of the fluid at first causes a suspicion that it came from a cyst; its high specific gravity and the chemical tests to which it answered favored such a view. But this was entirely at variance with the history of rapid accumulation and absence of physical signs indicating the existence of a large cyst. It was apparent at the autopsy that an attempt at extirpation could only have hastened the fatal result.

The specimen was referred to a committee for further investigation.

Editorial Department.

Periscope.

The Administration of Alcohol to Parturient Women.

Dr. Heywood Smith thus writes in the *Medical Press:*

From the time when, through the operation of some inscrutable law, a filiform cell from the male, coming into relation with a simple primitive cell in the female, determines in that cell an elective and developmental energy, differentiated from all other cell-growths in its complexity, so that by multiple fissure and differentiation of tissues it grows into the complete organism of an independent being, until the time when that new being ceases to derive its nourishment from the mother who gave it birth, such mother may, during all that period of eighteen months, be said to be *parturient.*

During this extended period of time she passes through several phases of constitutional energy, which may be divided into conceptive, gestative, parturient, puerperal, and nutritive; to each phase of which life there appertains its own constitutional peculiarity, its physical development, its functional activity, its receptivity of impressions from without, and its behavior under the administration of various foods and drugs.

It will be seen, therefore, that our subject will lead us to the consideration of several different vital conditions, and it will be my object, in as short a time as possible for its due elucidation, to glance at each of these several vital phases, and to see in what way the administration of alcohol acts in each, whether as a help or hindrance to the proper performance of healthy vital activity in the parturient woman.

And first in the conceptive phase. The phenomenon of "blushing," *i. e.*, the reddening of the cheeks, and often the neck and breast in women, is connected more or less with a similar "blushing," if I may so express it, of the ovary. The sexual orgasm is the highest, *i. e.*, the most intense expression of this symptom, wherein the active hyperæmia of the ovary leads, through the exaltation of the energy of the sympathetic system, to a relaxation of the arterioles of the superficies, and produces first a blushing, and then a profuse perspiration. Similarly, though in a minor degree, transient, and, it may be, slight sensations, having relations more or less remote to sexual emotions, calling up the mental impressions of love, shame, or mere embarrassment, are reflected to the skin of the upper region, and the passing wave of maidenly blush is the tell-tale of the mental impression produced.

These transient ovarian blushes, or temporary congestions, when occurring with a frequency that is beyond what may be deemed normal, tend eventually to set up disease in those glands; and we not unfrequently see, where the sexual feelings have been to a certain extent called forth and then repressed, as in an engagement to marry suddenly broken off, that a train of mischief is set up that tends to the development of ovarian tumor. Hence long engagements are physically bad, and breaches of promise fraught with actual harm.

Alcohol administered in sufficient doses relaxes the superficial arterioles, and also, in some way,

whether directly through the brain or reflectively through the sympathetic system, gives increased energy to the organs of reproduction. Hence the misery and crime that so often are the outcome of indulgence in alcoholic beverages, as witnessed by the increase of immorality at seasons of special festivity, a tendency that is too oft set forth in the ribald songs that disgrace such seasons of debauch. The total abstinence from alcohol would, therefore, do more to keep women pure, humanly speaking, than any sort of argument, or bushels of advice.

We now come to the gestative stage, where a woman is bearing about in her body a complex organism, to a certain extent independent of her, and yet, in a way that we scarcely recognize, dependent upon her health and self-control for its growth, development, and even future moral being. How important, therefore, nay, necessary, is it that the parturient woman should keep herself from all impressions from without, and from all morbid suggestions from within that might tend to mar the well-being of the treasured life of which she is the temporary casket. Yet in many cases how great is the temptation, yielded to too often, consequent on the morbid ideas that not unfrequently seem inseparable from the parturient state, to neutralize the depression of spirits by indulgence in alcohol; and the patient, for such she becomes, excuses herself with the idea that she wants *keeping up;* or domestic surroundings, or even the dislike to having many children, so preys on her mind that she flies to alcohol as a fortifier, or to render her perverted imaginations less obnoxious to herself. I once attended a lady, the wife of a member of Parliament, and therefore in a good position, who in several succeeding pregnancies, and, I believe, then only, took to drinking; and so far was she influenced by depression of spirits that she was most importunate, as was also her husband, that abortion should be produced in order to save her from the inordinate craving. Now it is of the greatest importance that the pregnant woman should maintain perfect health, but as the administration of alcohol supplies an extra hydrocarbon for the production of animal heat, either more caloric is produced than is needed, or there is an accumulation of unconsumed hydrocarbons that clog the system as fat, renders the woman less active than she ought to be in that condition, and, it may be, acts on the fœtus deleteriously by disturbing the balance of health in the mother's blood, on which it draws for its ever-increasing growth. A pregnant woman should, therefore, avoid alcohol in order to maintain her digestive function in the state of highest efficiency, considering that she is responsible to her husband, the commonwealth, and her God, to nurture and protect to the utmost of her power the new life that is springing up within her.

Next in order comes the parturient phase. As in the vegetable kingdom there is a period of impregnation, then of growth, and lastly, of maturation and separation from the parent plant, the duration of each stage varying according to its special cycle, each after its kind—so is the fruit-bearing in the animal kingdom. To each order is its own appointed cycle, each after its kind. In the vegetable kingdom there arrives a period of time when degeneration takes place in the connective tissue that binds the woody fibre of the stalk of the ripening fruit to the parent stem, until the time arrives when the force of gravity overcomes the cohesion of the parts, and the apple falls. So in the animal kingdom there comes a time when, the fruit being ripe, a degeneration takes place between the outer layer of the egg and the containing matrix, and the uterus, no longer recognizing the fœtus as an inherent part of its organism, deems it a foreign body, and proceeds to throw it off. The process calls forth considerable muscular and nervous energy, which necessitates the highest functional health of the animal, and it proceeds by rhythmical efforts, accompanied with suffering. Now, alcohol is an anæsthetic, and Dr. Prince, of Jacksonville, Illinois, has recently published some observations on its action during operations, the mode of administration being both by imbibition and by rectal enemata.

The reports of our midwives and others practicing among the poorer classes reveal the sad fact that women not unfrequently during the parturient stage are more or less under the influence of alcohol in some form or other, with the view partly of stimulating the action of the womb, and partly of relieving pain. But that is no reason why the husband and the select circle of assisting (?) female friends should also reduce themselves to a condition of helpless anæsthesia! In common with other anæsthetics, alcohol, when pushed in its administration, causes a relaxation of nervous and muscular energy, and so leads to the possibility—or, rather, probability—of hemorrhage. If, therefore, the parturient woman has good health and sufficient fortitude, it is better for her, in all respects, to abstain from the use of anæsthetics.

Following the parturient effort, we arrive, fourthly, at the puerperal stage. And here, following the advice of officious friends, the patient may be induced to imagine she has need of some "pick-me-up" to sustain her strength, and repair the exhaustion of labor. In such cases the exhibition of alcohol leads to dire results. For, on the completion of labor, there commences the process of involution of the uterus; and this process is carried on by means of fatty degeneration of the contractile tissue of the organ, which is eliminated partly through the secretion of the milk, and partly by the combustion of the fatty elements maintaining the general heat. But the presence of alcohol retards the process, as the hydrocarbon alcohol is more easily burnt off than the fatty hydrocarbons; and the retardation of involution, recognized by us as subinvolution, leads to the permanent enlargement of the uterus, and all the evils that follow in its train, as chronic cervicitis, misplacements, and prolapsus. Aiding this tendency to subinvolution is the want of proper, healthy, tonic contraction of the uterus, inducing in some cases too profuse a sanguinary discharge, and paving the way for the too ready absorption of septic material.

The atony resulting from chronic alcoholism may lead also to passive congestion of various outlying parts, as venous inflammation with white leg, mammary abscess from chill more easily affecting the part having its vascular sys-

tem relaxed and engorged, and to a low type of inflammation affecting the uterus itself. A woman will, therefore, best pass through the puerperal state who abstains wholly from alcohol.

Fifthly, and lastly, we come to the consideration of the nutritive phase of the parturient woman—the period of suckling. And here a popular fallacy has worked untold mischief. Nearly all women believe that they cannot give a full supply of milk unless they imbibe several pints of porter or other alcoholic beverage *per diem*. Some of you may remember a picture of Leech's in *Punch*, illustrating nursery French, where a small boy, asking the maid to bring his mother, who is depicted with her infant, her morning glass of frothing porter, says, "*Apportez ici le porter de mamma, et designez le avec une tête.*"

Now nothing is more untrue nor deleterious than the habit that this fallacy engenders. I have often found—and I speak from experience—that when mothers have been bad nurses, the scanty supply of poor milk could be traced to frequent glasses of sherry or other hurtful alcoholic beverages; and have seen, when all such have been laid aside, that the supply of milk has been improved both in quantity and quality. "A lean cow is a good milker" is an adage the truth of which all farmers can bear witness to; and the same may also, as a rule, be said of women. But the fattening tendency of the chronic imbibition of alcohol militates against the woman being a good nurse; and, moreover, some of the poison, passing rapidly and unchanged through the system, passes into the milk, and so the helpless infant becomes an early toper, and might—who knows?—suck in with its mother's milk an hereditary predisposition for the cup that "mocks" and "takes away the heart."

I trust that I have in this short paper proved that the administration of alcohol to parturient women is an unmitigated evil; that in every stage through which she passes it is fraught with the gravest results, both near and remote; and that he does best for those feeble ones committed to his care (as the weaker vessels) who steadfastly, himself conscientiously convinced of the importance of the subject, sets his face to warn women from the pitfall, at the brink of which they may be standing, and to point their minds to a higher channel for satisfaction, and their bodies to a purer beverage.

I cannot conclude without one further remark: that we must not be narrow-minded, nor be carried away with the idea that because a particular drug is poisonous, it is therefore to be eliminated from our materia medica. With just such a show of unreason should we abrogate the use of opium or blue pill. There are undoubtedly cases that call for alcohol, either in its pure form or wrapped in the tonic properties of some wines (where such can be procured unadulterated), and he would be equally to be blamed if, from a mistaken prejudice, he refused to administer it when the requirements of the case demanded, as he who withheld opium in a case of peritonitis.

He is a wise warrior who in his battle against disease in all its varied forms, knows best how to choose his weapon, and recognizes the opportune moment for using it.

The Preparation of Cocaine.

Dr. A. Castaing thus writes in the *N. Y. Med. Jour.*, December 27, 1884:

Cocaine is undoubtedly the great object of interest of the moment, and there is not a physician of progressive ideas who is not anxious to test the marvelous effects of the new anæsthetic. The drug trade, taken unawares by the sudden and sustained demand for cocaine of the various brands which are guarantees of genuineness, is unable to keep pace with it, and is therefore compelled to offer a substitute in many cases inferior to the article called for by the doctor's prescription. The natural consequence is that the anticipated effect is not produced, and the wished-for and confidently-expected local insensibility is not attained. The practitioner is disappointed at his first experiment, his professional pride receives a shock, and in his mind doubt takes the place of the enthusiasm he was at first inspired with. Yet it would be wrong to cast the blame upon cocaine, for the alkaloid, when real and chemically pure, does truly possess the power of producing local anæsthesia, not only on mucous membranes, but also on the whole surface of the epidermis, and, to a certain depth, beneath it.

Considering the difficulties attendant on obtaining the genuine article, we think we shall do well to make known a way, which repeated trials have shown us to be the most effectual, to extract the alkaloid from the *erythroxylon coca*. Having observed that cocaine is extremely susceptible of change under the influence of acids, we studied how to exhaust the coca leaves without using acidulated liquids, and discovered the following method, by which one grain of cocaine can be extracted from four hundred and eighty grains of leaves. To obtain this result, however, it is requisite that the coca leaves be of good quality—that is, gathered at the right time and place, properly dried (a leaf with brown spots on it, resulting from moisture, has lost all value)—and, above all, not injured by age or by exposure to the air and consequent evaporation.

Modus Operandi.—On one part (by weight) of coca-leaves pour eight parts of boiling water, and let them steep for half an hour in a closed vessel in a water-bath. Pour the whole into a percolator, and, when all the liquid part is strained off, continue the exhaustion of the leaves by pouring on them eight parts of alcohol at 85°. Mix the two liquors and precipitate them by means of acetate of lead, draw off with a syphon, and then add sulphate of sodium to remove the salts of lead. Filter and evaporate at a gentle heat until the liquid has attained the consistence of syrup. Treat the whole with water to separate the resinous part, and then precipitate with carbonate of sodium. The precipitate is then to be exhausted by sulphuric ether, and the ethereal solution, after the ether is distilled, is exposed to the air until every trace of ether has comptetely disappeared. By this means is obtained a crystallized residue of a brownish-yellow and of a disagreeable smell. This is impure cocaine.

The coloring matter is removed by washing once or twice with cold alcohol. The cocaine, thus purified, appears in the form of transparent prisms, without smell, bitter to the taste, soluble

in seven hundred parts of cold water, more soluble in alcohol, and entirely soluble in ether. The solution has an alkaline reaction, and, when applied to the tongue, it imparts a bitter taste, and a certain insensibility, followed by a slight sensation of cold, recalling the effect of ether spray upon the epidermis.

Heated to 208° F., the cocaine becomes liquid, and, under the influence of cold, it becomes a transparent mass, which gradually assumes a crystalline form. If it be exposed to a degree of heat higher than 208° F., cocaine changes its color and decomposes. It is inflammable, and burns with a brilliant flame, leaving an ash behind it. It forms soluble salts with acids (its hydrochlorate is the best) and all these salts are more bitter than the alkaloid. It is a compound of carbon, hydrogen, nitrogen, and oxygen.

The medical profession is well acquainted with the effects of wines, extracts, and infusions of coca. I trust that what I have written above will show clearly how its action varies in accordance with the amount of cocaine contained by the leaves, and that, in order to obtain the true therapeutic effects of coca, it is absolutely necessary that the cocaine be titrated at a fixed dose in all its preparations.

The Usefulness of the Nose in Diagnosis.

The *Jour. Am. Med. Ass.*, December 20, 1884, says: Probably every physician sees times in his examination of patients when he devoutly wishes he had no olfactory nerves, or, since to be deprived of the sense of smell would at the same time also deprive him of the possibility of certain keen enjoyments, he prays for that happy condition of the farmer, who, when asked by a young theologian, if he objected to his saying grace at the table, replied, "Oh, no! say what you have a mind to—you can't turn my stomach." Unpleasant as the possession of a nose often is, there are occasions when its delicate appreciation of odors is fortunate. Nay, furthermore, it seems sometimes serviceable in guiding a physician to a correct diagnosis. All are familiar with the fetor of the air expired in cases of pulmonary gangrene. Likewise, the breath of patients suffering from chronic copper and lead poisoning has a foul, strongly suggestive smell.

A peculiar smell of the breath in other diseases has been repeatedly noted by trustworthy observers. Thus, a urinous odor has been detected in the breath of patients suffering from retention of urea in the system from renal disease. The act of coition is stated by a German, whose name we cannot recall, to impart a very characteristic odor of the breath. It is needless to allude to disordered stomachs and constipated bowels, bronchorrhœa, decayed teeth, nasal catarrh, and numberless other conditions familiar to every physician as productive of a foul breath that often leads to a diagnosis upon the very entrance of a patient into the consulting office.

The fetor of uterine cancer is so proverbial that its very mention seems superfluous. *Apropos* of this offensive smell, Dr. Middleton Goldsmith, of Rutland, Vt., in a contribution to the New York *Medical Record*, November 29, 1884, entitled "Some New Facts and Considerations in the Diagnosis of Cancer of the Stomach and Cancer of the Pancreas," cites a case in which the eructations emitted a fetor identical with that of carcinoma uteri. Gastric symptoms usually met with in cancer of the stomach were not marked, though a pronounced cachexia was present. The autopsy revealed an encephaloid cancer involving almost the entire stomach. Upon being accidentally torn into, the organ emitted an overpowering stench identical with that having distinguished the eructations in life. Dr. Goldsmith says this fetor is not invariably present, but that, when it obtains, it may be regarded as pathognomonic of gastric cancer. The fact is well worth remembering.

Peculiar odors do not proceed exclusively from mucous membranes, the skin sometimes emits an unnatural smell in disease.

A pungent mice-like odor is said to be characteristic of typhus.

A sour smell is sometimes perceived to proceed from persons ill with acute articular rheumatism. We do not recall any reference in medical literature, to a singular odor of the perspiration sometimes encountered in phthisical patients. But we recollect vividly two instances in which we were struck by this peculiarity. The first case was that of a man who had a very extensive consolidation of both apices.

The odor did not impress us specially, until a few minutes afterward upon approaching another patient, already stripped for examination, when the same odor met us, surrounding the man like a cloud. At once, without considering the rashness of the statement, we exclaimed to those about, this is a case of chronic consolidation of the lungs. Luckily the examination sustained the diagnosis. In these instances, the odor could not have been due to the medicines taken, as these were devoid of special scent. Whether there be anything in this or not, peculiar odors associated with some diseases are so well established as to render the nose of the diagnostician anything but superfluous.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. A. P. Meylert, in the third edition of his useful essay on the opium habit (New York, G. P. Putnam's Sons, 1885), asserts that the use of this dangerous drug as a private indulgence is decidedly on the increase in our country. In his hands most of the alleged specifics have not produced good results. His treatment depends on the case and circumstances.

——The relation of micro-organisms to disease is discussed in a paper by Dr. S. Laughton, of Bangor, Maine; his conclusion on their action is as follows:

"It becomes more and more evident that it is not alone the presence of pathogenic bacteria which determines the disease, but also the condition of the

body in which these bacteria, as so many seeds, are planted. Indeed, the question at issue between those who accept the contagiousness of bacillus tuberculosis, represented by Koch in Europe, and those who do not accept it, represented by Formad in this country, may be in a good degree settled by considering the relation of the soil to the seed, as well as of the seed to the soil. Not every soil is suited for the same kind of seed. Again, the same soil may be in a fit condition to receive the seed at one time, and not in condition to receive it at another time."

——We cordially recommend to any physician who contemplates visiting Europe for the first time to obtain from Dr. Edward Borck, of St. Louis, a copy of his pamphlet entitled "Home Again." It contains a number of valuable suggestions for the traveler, and also an interesting account of his visit to Copenhagen as a delegate to the International Medical Congress. It is divided into two parts:

PART I.—*Professional Observations.* Hospitals, International Medical Congress, etc., etc.

PART II.—Sight-seeings and general useful information.

BOOK NOTICES.

A Pharmacopœia for the Treatment of Diseases of the Larynx and Pharynx, and Nasal Passages, with Remarks on the Selection of Remedies and Choice of Instruments, and on the Method of making Local Applications. By G. M. Lefferts, M. D. Second edition. 12mo., pp. 101. Price, $1.00. New York: G. P. Putnam's Sons. 1884.

The scope and contents of this little work are so fully set forth in the title that it is not required that we should do more than state that this edition has been carefully revised, and the recent additions to the medicaments for the larynx and adjacent parts included. It is well arranged and neatly illustrated.

Intestinal Obstructions, their Varieties, Pathology, Diagnosis, and Treatment. By Frederick Treves, F. R. C. S. Illustrated. Small 8vo., pp. 515. H. C. Lea's Son & Co., Philadelphia. 1884.

As a justification for the length of his monograph, the author mentions in the preface that more than two thousand persons die every year in England alone of intestinal obstruction in some of its forms. This is a large figure, and shows at once that not only is the lesion a rather common one, but that surgeons up to the present have not been very successful in combating it. This led the Royal College of Surgeons to propose it for a prize essay in 1883, and the present work is hat prize essay, with additions.

The author treats the subject carefully in twenty-six chapters, explaining the varieties of strangulation, volvulus, intussusception, compression, stricture, and the various accidents of obstruction proper. The treatment he divides into non-operative and operative or surgical. There are also certain special forms of treatment applicable to peculiar varieties, which are described in a separate chapter.

A Manual of Bandaging Adapted for Self-Instruction. By C. Henri Leonard, M. D., etc. Illustrated. Second edition. 8vo., cloth, pp. 159. Price, $1.50. The *Illustrated Medical Journal Co.*, Detroit.

To those whose education in minor surgery has been incomplete this volume will be well worth the price asked for it. The whole subject of bandaging and those akin to it, poulticing, strapping, compresses, immovable apparatus, dressing of wounds, are presented in brief and clear language, and in accordance with the recommendations of the best recent authorities. That the demand has required the preparation of a second edition is a proof of the value of the essay.

A Text-Book of Hygiene: a Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By George H. Rohe, M. D., etc. 8vo., pp. 828. Baltimore, Thomas & Evans, 1884.

The subjects discussed by the author of this treatise are air, water, food, soil, sewage, the construction of schools, hospitals, barracks, prisons, etc., marine, military, and industrial hygiene, clothing and bathing, epidemics, the germ theory, antiseptics and disinfectants, the disposal of the dead, quarantine and vital statistics.

This, it will be observed, is a wide field, and it requires judicious compression to say all that ought to be said about them upon the compass which the author has allowed himself. He has confined himself to plain statements of the most salient points. The very elementary tone in which portions are written indicate that he had in view readers devoid of any previous knowledge on the subject.

The make-up of the book is rather poor, both paper and press-work being below the average.

The Basic Pathology and Specific Treatment of Diphtheria, Typhoid, Zymotic, Septic, Scorbutic, and Putrescent Diseases Generally. By George. J. Ziegler, M. D. 12mo., pp. 225. Philadelphia, 1884.

The writer of this volume thinks he has made a most important discovery, to wit, that of the one underlying morbific agent of all the formida-

ble list of diseases which he names on his title page. The fact that he has to bring this to the knowledge of the world in a work published by himself seems to indicate that this alleged discovery is distrusted by the medical world at large.

It would hardly be fair to reveal it in the compass of a book notice, and we prefer sending the anxious inquirer about this startling discovery to the volume itself where he will find it presented with the reasoning and evidence of the author; and also in a peculiar diction which has at any rate the stamp of marked originality.

The Principles and Practice of Gynecology. By Thomas Addis Emmett, M. D., LL. D. Third edition. 8vo., pp. 876, illustrated. Philadelphia, H. C. Lea's Son & Co., 1884.

The rapid advance in the branch of diseases of women is well illustrated by the growth and changes in the three editions of this treatise. It is only five years since the first edition passed through the press, and already the author informs us that nearly every chapter has required not merely revision but rewriting.

Such changes betoken not merely an adding to our previous knowledge. Were this all, it would be a matter of unmixed congratulation. Unfortunately, the truth is far from this. In the last five or six years the gynecological world has come to recognize numerous most disastrous errors of practice in which the mistaken zeal of its votaries had plunged it. To mention one only, the abuse of intra-uterine medication, now generally recognized, ruined hopelessly the lives of thousands of women.

We are glad to add that Dr. Emmett has been a conservative teacher, and has generally warned against the extravagances of his fellow specialists, though he acknowledges that he has not fully lived up to his convictions in this respect.

The author lays especial stress on the varieties of pelvic inflammation, and the reader will find this important topic treated nowhere more fully than in his pages. There are few points, indeed, in the branch which are not discussed at length. The details of cases takes up much room which might, it seems to us, have been advantageously reduced.

A Hand-book of Ophthalmic Science and Practice. By Henry E. Juler, F. R. C. S. Illustrated, 8vo., pp. 467. Philadelphia, H. C. Lea's Son & Co., 1884.

Mr. Juler, is a London ophthalmologist of high standing, and his treatise has met with a favorable reception from the British Press. It is eminently practical in tone, and the style is free from the verbiage with which many specialists surround their teachings. The volume is one which can be read with satisfaction by any educated physician. It is, moreover, admirably illustrated, both with numerous wood-cuts and chromo-lithographic plates. Selections from test types are bound in with the volume, and a well-prepared index and table of contents facilitate reference. The arrangement and scope of the text does not offer any material differences from other works on the branch. The manufacture of the book is uncommonly excellent.

A Text-book of Practical Medicine. By Alfred L. Loomis, M. D., LL. D., with 211 illustrations. New York, Wm. Wood & Co. Pp. 1102.

Dr. Loomis has long been known as an acceptable instructor to a large class of students in the University of the city of New York, and as a practitioner of widely-acknowledged skill, any work from his pen is sure, therefore, to command a large popularity with the profession.

The present volume is in fact a recast of his lectures before his annual classes. It is not, however in the form of lectures, but in that of a didactic treatise. The diseases are classified under the different organs to which they have chief reference, and each disease is considered with reference to its pathology, etiology, symptoms, diagnosis, and treatment. Particular attention is given to the morbid anatomy of lesions. This, in the opinion of the author, deserves a higher place than it receives in many treatises.

Another point which the author makes is that many diseases present in this country peculiar features, and are benefited by modes of treatment not entirely the same as those taught in European authorities. This view is unquestionably correct, and it is one that for many years we have urged in the pages of this journal. After long hesitation, it is now slowly receiving acceptance by the profession, and we shall soon see it adopted generally, and no doubt claimed as a discovery by our New York brethren, after their well-known fashion.

In the matter of treatment, Dr. Loomis is not a very strong believer in drugs. He belongs to the school of those who would do nothing rather than run risks. The lover of new remedies will find scant satisfaction in his pages. Here he will be disappointing to the majority of readers, but they will not have to go far to find plenty of authors who make up for his deficiency in this respect.

The numerous illustrations are chiefly of morbid processes, and are well drawn and original.

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GENERAL CARCINOSIS.

To the New York Pathological Society (October 22, 1884), Dr. John A. Wyeth presented a specimen, accompanied by the following history, furnished by his house-surgeon at the Mount Sinai Hospital:

Franz S——, aged thirty years, a native of Germany, single, and a machinist, was admitted September 10. Last May the patient noticed a swelling at the left side of the umbilicus. It gave him no pain. It gradually increased in size downward and forward until it gave him great inconvenience from its size, weight, and position. During the last four months the patient has lost eighty pounds in weight, has had for some time a cough, with some expectoration, occasionally bloody. Last April the patient had his left testicle removed at the German Hospital, presumably for tubercular disease. Of late the pain in the abdominal tumor has become so severe that it prevents him from sleeping. There was no history of gonorrhœa, chancre, or rheumatism; no œdema. One brother and his mother died of phthisis; a remaining sister has some lung trouble.

On admission, the patient had a large tumor involving the umbilical, left inguinal, and left lumbar regions, extending about two inches to the right of the umbilicus downward almost to the symphysis pubis, and also around to the back. The tumor was painful on pressure. Pressure over the region of the left kidney gave rise to pain also on the under surface of the liver and over the left upper half of the thorax, especially near the sternum. There was some bulging at the upper part of the left side of the chest anteriorly, and the outline of the clavicle was entirely obliterated. The left axillary and supra-clavicular glands were much enlarged. The abdominal tumor had a nodular feel, and a number of small, nodular bodies could be felt near it.

Physical examination of the lungs revealed slight dullness and broncho-vesicular breathing at the right apex anteriorly; marked dullness, diminished voice and breathing; crepitant, subcrepitant, and sonorous rales at the left apex an-

teriorly. There was a resonance between the splenic dullness and the tumor.

The patient had marked laryngitis, loss of voice, and spasmodic cough. There had been no hæmaturia at any time. He was much emaciated, his appetite was poor, temperature 100° F., and he complained of constant pain.

September 16.—Great pain in the left leg and thigh, limb cold and mottled, and foot anæsthetic. No pulsation in the femoral artery. The swelling of the left lower extremity continued to increase, accompanied with pain along the course of the artery, and on September 22 several large blebs were observed near the ankle. The general condition of the patient grew worse, and he died on October 15, with symptoms of pulmouary œdema.

Autopsy.—On opening the abdomen a large tumor was found occupying the left inguinal and lumbar regions, and covered by the adherent mesentery. The abdominal wall was not involved. The tumor was firmly attached to the vertebral column, and to it were attached the descending colon and left kidney. The ureter had been compressed by the tumor and hydro-nephrosis had resulted. The tumor seemed to arise from glands in the lower dorsal and lumbar regions, and had surrounded the aorta and vena cava completely. The vertebral column and inter-vertebral cartilages appeared healthy. The left external iliac artery was flattened and nearly occluded by the tumor, and there was thrombosis of the iliac vein extending down into the left femoral. The mesenteric glands were involved, as also were the glands passing below Poupart's ligament, with the femoral vessels. The anterior mediastinum was occupied by a new growth, which was attached to the sternum, and extended backward about one inch behind the trachea, surrounding it and the great vessels of the neck. The apex of the left lung was pushed to the left by the tumor, and the upper lobe was infiltrated with the new growth. The upper lobe of the left lung also contained numerous cavities, and there was marked bronchitis and laryngitis. The right lung appeared normal. The liver showed numerous broken-down white foci, varying in size from one-fourth to two inches in diameter. The kidneys were congested, the spleen and stomach were normal, and the bladder contained nodules similar to those seen in the liver. The brain was not examined.

The specimen had been examined by the pathologist of the hospital, who pronounced the new growth to be cancerous, probably originating in the lumbar glands, with metastasis into the mediastinum and other organs of the body. The point of interest in the case was the fact that the patient was operated upon for removal of a tumor of the testicle, which was considered to be tubercular in character, and within a few months subsequently a new growth occurred in the line of the lymphatics upon the same side of the body, which growth was carcinomatous, and was followed by malignant growths in the lungs, liver, bladder, and mediastinum. The testicle was removed by his colleague, Dr. Gerster, who had presented it to the society as a tubercular testis, and on examining the records of the German Hospital it was found that the case was recorded there as one of tubercular disease of the testicle.

DISINFECTION.

For a subject that has been discussed as much as has the question of disinfection, we certainly are not very close to accurate knowledge. However, we can do considerable in the way of rendering innocuous germs, vapors, or whatever may be the cause of disease. We have rarely seen better advice on this subject than is contained in the summary of Dr. W. J. Miller's article in the *Practitioner*, October, 1884, which he thus wisely concludes:

1. Considering the strength of a disinfectant, which these experiments show to be necessary, it is very doubtful that any efficient disinfection of a room can be practiced while it is occupied. Nevertheless, it is possible that the presence of a disinfectant, though not in sufficient concentration to kill contagium, may by long continuance of operation weaken it, and if microzymes be the contagium, may so lower their vitality as to impair their power to reproduce their kind. A certain degree of probability is given to this by

Prof. Tyndal's observation of the effect of discontinuous heating in sterilizing putrescible liquids, which led him to conclude that there is a period in the life-history of these minute organisms when they are especially vulnerable. It is therefore in the direction of good, to employ some disinfectant during the progress of the case; and there is none equal, either in efficiency or in simplicity of application, to sulphur. It is exceedingly convenient in practice to use sulphur pastilles, as introduced by Dr. Littlejohn, each of which contains twenty-five grains of sulphur, one or two being used at a time, according to the size of the room. This should be done several times a day.

2. The skin of the patient should be sponged several times a day with diluted acetic acid, by preference with the aromatic. This is especially applicable in scarlet fever, effectively disinfecting the desquamating skin. I only mention the method of inunction to emphatically condemn it. The strength of the solution must be regulated by what is found agreeable to the patient; a 1 to 20 solution of the aromatic acid which has been referred to, is generally not too strong.

3. For the final disinfection of the sick-room nothing equals sulphur. But it must be thoroughly applied. The Dundee sanitary authority uses about three pounds of sulphur to a room about ten feet square, carefully closing all apertures by which the fumes might escape, and leaving the room shut up for about four hours.

4. For disinfection of clothing, etc., the method followed here is exposure to a temperature of about 250° for three hours in a specially constructed chamber, the air being also charged with the fumes of about six pounds of sulphur. It is scarcely possible that any contagium can live through such an ordeal.

5. Excreta of patients are best dealt with by Dr. Dougal's method, namely, mixture with hydrochloric acid diluted to 1 to 20. He has proved that this solution does not injure the metal fittings with which it comes for so short a time in contact. Clothes may also be thoroughly disinfected by this agent, and without injury.

6. For hand disinfection, carbolic solution 1 in 20, acetic acid and sulphurous acid are almost certainly thoroughly effective.

7. The question of disinfectant inhalations for lung disease, especially phthisis, demands a longer consideration than can here be given to it; but when we consider that vaccine which had been exposed for three hours to air saturated with creasote vapor, and similarly for four hours to the vapor of eucalyptol, retained its infectivity unimpaired, that the germs to be acted on are far in the recesses of the air vesicles, and that the inhaled disinfectant can only reach them in very weak dilution, if indeed it reaches them at all, it appears to me, although it is very disappointing to arrive at such a conclusion, difficult to place much confidence in this therapeutical expedient.

Notes and Comments.

The Contagiousness of Typhoid Fever.

The contagiousness of typhoid fever has been maintained by some and denied by others. It seems to be one of the questions about which there is considerable latitude of opinion. Hence it will be interesting to read about the cases that Dr. E. A. Cobleigh, of Athens, Tennessee, reports in the *Cincinnati Medical News*, wherein the evidences of contagiousness are very strong. They deserve the careful attention especially of surgeons in charge of hospitals. He thus reports his cases:

"During the month of May, a young man of this vicinity returned home from a neighboring city, rather indisposed. He was aged about 28 years, deformed from early childhood by anterior spinal curvature to moderate degree—the hunchback condition being attributed to an injury received, when quite young, from a fall—but the curvature not materially increasing for many years. This young man, whom we will call J. C., had been engaged for only a few weeks in business in the city aforesaid, and about ten days or two weeks before his return home, he had assisted in 'laying out' a man who was said to have died of typhoid fever. He went to his mother's home, a couple of miles in the country, and a doctor was called, who stated that he feared J. C. was coming down with typhoid. A couple of days

later, as the first physician was professionally absent, another was called to permanently supersede him, and the new man pronounced the case one of septicæmia from absorption of detritus from spinal caries—the last stage of Pott's disease. Under this treatment, the case went on for about five weeks, with a fatal prognosis from the first.

"About three weeks after J. C. came home, I was called to see Mrs. P. B., a young lady of 23 years, in same house. My patient was anæmic and debilitated from prolonged lactation. Her first child was a neice of J. C., and had been nursing him much of the time during his illness. Her case rapidly developed into an open, well-marked, but mild typhoid fever. J. C. was now very low and unconscious. The two cases moved along for three weeks side by side—mine mild, mostly rational, but profoundly debilitated; the other comatose and condemned. Once I saw J. C. at the urgent request of family, but only as bearing on my own case and not for treatment or criticism. That he had a pure typhoid I was firmly convinced, but this I did not say. Thinking him dying for eighteen hours at one time, all remedies were discontinued, when he unexpectedly opened his eyes and rationally called for something to eat. From this point forward, for thirteen weeks, he hung between life and death, alternately conscious and comatose, and then rallied under the care of his first physician (who had been recalled), and recovered.

"Meantime Mrs. B., who had been slowly but steadily improving for several days, imprudently sat up for a few moments in a very weak state, then lay down, turned on her side, complained of nausea, gasped, and was instantly dead of cardiac paralysis. This occurred at the beginning of the fourth week of her illness. The details of these two cases I give rather in full because of their interesting points, as well as their bearing on the history of the outbreak. The others I shall merely mention in brief. About a week after Mrs. B. died, a younger sister of hers, K. B., living in the same house, came down of the disease, and had a mild and brief attack, out of which, however, she came very markedly emaciated. A younger brother of J. C., residing in Iowa, and an older brother, whose home was about one and half miles from the infected house on another road, went to him soon after he fell ill, and were in or about his room most all of the time. The older brother had a very delicate wife and child, both of whom visited J. C. during his confinement, and these two suffered, I am told, from attacks of the same fever. Two other children of this family escaped, these two being stout and healthy.

"The husband of Mrs. P. B. did much nursing of the sick parties, but he had experienced a severe and prolonged typhoid in another State a few years previously, and escaped this time. The younger brother of J. C., from Iowa, came down soon after K. B., and had a long, tedious attack. The older brother escaped. Whether he was protected by a previous occurrence, I am not aware. An older sister, the mother of Mrs. J. B. and K. B., also escaped. This lady was well along in years. Another one of these girls, and in age between the two previously mentioned—also residing in the infected house—came down last of all, but had a very light attack.

"Another, and younger sister of J. C., residing two and a half or three miles distant, came with her husband to nurse the sick, and stayed much in this house. The husband was an old and experienced nurse in typhoid, and escaped. His wife, suckling an infant, fell ill after returning home, and was seriously sick for some time. The nearest neighbor of this family, a mile farther out on the same road, next had a half-grown boy attacked, probably from contagion by intercourse between the two houses, and lastly an invalid brother-in-law of this lad, residing in town, had an attack. No epidemic of typhoid was prevailing in our section at the time these cases occurred, and indeed this fever is rare here—only appearing at rather long intervals. Seven miles southwest of our town, a few imported cases were reported in a neighboring village. With the exception of these, I do not know of any other cases having been heard of in the country, and surely it seems to me that the history of those given shows a pretty good indication of gradual spread by direct contagion. Some years ago a similar outbreak occurred in the town itself, about a dozen cases all told—the first, a young lady just home from boarding-school in Pennsylvania, fatal; the others confined to about three houses, and all directly traceable to apparent infection by personal intercourse with the sick."

Cocaine in Dysphagia.

The following striking example of the successful use of cocaine in overcoming painful deglutition was related by Dr. Jelinek in a paper read before the Vienna Society of Physicians, which has been published in full in the *Wiener Medicinische Wochenschrift* (No. 46):

The patient, a male aged forty-five, was suffering from tubercle. There was extensive swelling, and brawny infiltration of the epiglottis, but only moderate dullness and slight crepitation were discoverable at the apex of the right lung. He had been treated as an out-patient in the clinic of laryngology for three months, and iodoform and morphia had been daily blown into his larynx, and he had constantly taken ice. In spite of this treatment he affirmed that for close upon two months he had only been able to swallow milk in the minutest quantities. He was extremely wasted, incapable of work, scarcely able even to walk, and tortured by continuous pain and thirst. Before applying the cocaine solution Dr. Jelinek made him drink some water. He had hardly swallowed a drop before he started up in the greatest pain, while the water returned through his mouth and nose. Dr. Jelinek then carefully painted the lingual and part of the laryngeal surface of the epiglottis, and the valleculæ, with a ten per cent. solution of cocaine, and a minute afterwards told the patient to drink again. The man anxiously took a small mouthful, for a moment looked around in astonishment, and then, to the surprise of all, greedily swallowed the whole glassful at a single draught. Tears of gratitude filled his eyes, and he could scarcely find words to express his thanks. The next day he related that on reaching home, an hour after the application, he had, to the astonishment of his wife, made an excellent meal (the first he had had for two months) without any difficulty, but that soon after the pain reappeared, and three hours after the painting, was as bad as ever.

Echinococcus of the Neck.

Dr. Lindpainter, of Munich, reports a case of the above in the late *Festschrift des Arztlichen Verein* (*The Medical Press*). The patient had noticed an enlargement of the neck, principally on the left side, from his earliest youth. About ten years ago, after forced yawning, it increased rapidly in size, so that a considerable tumor developed behind the sterno-cleido-mastoid muscle, which caused difficulty of breathing, and was diagnosticated by various physicians as struma. On August 20, 1882, Dr. Lindpainter was called to perform the operation of tracheotomy on account of the difficulty in breathing. He found on the left side of the neck a tumor the size of a man's fist, reaching from the clavicle to the ear. The trachea was forced over to the right, and flexed, so that respiration was exceedingly difficult, and the œsophagus was also so much compressed that fluids even could only be swallowed with difficulty. Dr. Lindpainter took the tumor for a solid struma, calling for tracheotomy, but upon examining more closely he discovered in a small spot above the clavicle distinct fluctuation. After puncture and the evacuation of about three ccm. of clear watery fluid, fluctuation was noted in another part; he punctured this also, and let out about 5 ccm. of similar fluid, after which the trachea straightened itself, and the breathing at once became easy. Examination of the escaped fluid showed the presence of hooklets, and the only further question was the extirpation of the echinococcus. He determined upon incision and drainage. He accordingly incised and inserted a drain on September 2, and in the beginning of December, as no more cysts by that time appeared, the drainage-tube was removed, and in a day or two the wound healed, and at the date of the report, the neck appeared quite well.

Cocaine in Neuralgia.

Dr. William Murrell thus writes in the *British Medical Journal*, December 13, 1884:

During the last three weeks I have used cocaine in six cases of supra-orbital neuralgia, with an account of success which I think justifies a further trial of this mode of treatment. I commenced by rubbing in a four per cent. acqueous solution of hydrochlorate of cocaine, but no beneficial effect was produced, and it was clear that absorption did not take place. I next tried hypodermic injection over the painful spot, of first an eighth, then a quarter, and finally half a grain of the same solution. The relief was almost instantaneous, and lasted from twelve to twenty-four hours, according to the dose employed; but the objection to this mode of treatment is the pain caused by the introduction of even a clean sharp needle. I abandoned this plan, and tried the inunction of first a ten and then a twenty per cent. solution in chloroform. This gave fairly good results, but the chloroform evaporates so quickly as to leave much of the salt on the skin. A better solvent is oil of cloves, and I now use a twenty per cent. solution of the hydrochlorate in that menstruum. I rub in from five to ten minims with the finger, and find that almost instant relief is afforded. We hear a great deal of the toxic action of the drug, but I have never met with bad symptoms of any kind. The real objection to the treatment is the expense, a hundred minims of the twenty per cent. solution costing about £2

10s. In hospital practice it will be found cheaper to employ percussion, which sometimes gives excellent results, or to use a pigment made by rubbing up together equal parts of chloral, menthol, thymol, and camphor.

The Diagnosis of Gastric Disease.

In the *Lancet*, December 13, 1884, we read that methods have been adopted from time to time with a view of determining the digestive activity of the gastric juice outside the body. Van der Velden elaborated a method for carrying out this plan by getting patients to swallow a dry sponge enveloped in a gelatinized capsule. Leube used to wash out the stomach with about 300 cubic centimetres of iced water. Recently M. Beaumetz has adopted the principle of aspiration in order to obtain some gastric juice. There appears to be no need for the practical physician to acquaint himself with the details of the procedure nor with the minutiæ of the apparatus concerned. Van der Velden said that in cancer of the stomach the secretion from this organ contained no hydrochloric acid, and thus believed that an easy way was open for us to distinguish between cancer and other chronic gastric disorders. Leube concluded that the degree of acidity of the gastric juice would give us some idea of the degree of the dyspepsia, and he drew no other conclusion from his careful study of the subject. A certain coloring matter derived from coal-tar, and known as orange-poirier No. 4, or tropeoline, undergoes a change to a clear violet-red tint, when a one per cent. solution is brought in contact with muriatic acid, whilst it does not lose the yellow tint with lactic and other acids. This tropeoline has been employed in testing the condition of the gastric juice. The above information is interesting, but as yet cannot be said to possess any value for clinical medicine.

Operations on Aged Persons.

Since we have already had something to say on this subject, we report with pleasure the following case, which Dr. G. Parker May reports in the *Brit. Med. Jour.*, December 13, 1884:

Mrs. B., aged 84, was long the subject of umbilical hernia. Great corpulency and a chronic cough rendered a truss of little use. On June 5, 1830, strangulation took place, succeeded shortly by fæcal vomiting, resisting the taxis, aided by refrigerating applications and tobacco-enemata. The warm bath was not employed, on account of the great age and helplessness of the patient. An operation was performed at 5 p. m. A mass of omentum was strongly adherent, behind which was a knuckle of intestine, of a dark chocolate color, about five inches in length, which was returned. The omentum, being healthy, was suffered to remain. The bowels acted spontaneously five hours afterwards, and vomiting ceased. Some amount of irritative fever lasted about a fortnight, associated with loss of appetite. Under the administration of cordials, etc., she gradually regained strength, and was restored to her usual condition of health. It is remarkable that about twelve months afterwards strangulation occurred a second time, necessitating another operation. About two feet of bowel appeared below the stricture, which was with difficulty returned, owing to the severe habitual cough to which the patient was subject. She was then in her eighty-sixth year. She did well, and lived more than two years after this operation.

Danger of Too Early Repetition of Iodine Injections in Hydrocele.

Professor Tillaux drew the attention of his class, at the Beaujon, to the danger of being in too great a hurry in repeating injections of iodine in hydrocele. It is only at the end of six weeks or two months that we can judge of the result of the first injection, and to interfere before this time is to expose oneself to induce the formation in the tunica vaginalis of those false membranes which are so vascular that they bleed on the slightest shock, and thus give rise to hæmatocele and the loss of the testicle.

Special Report.

REPORT ON THE USE OF MURIATE OF COCAINE.

BY DUDLEY S. REYNOLDS, M. D.,

Professor of General Pathology and Diseases of the Eye and Ear in the Hospital College of Medicine, Louisville, Ky.

Reported by ALLEN KELCH, M. D.

(*Concluded from page* 29.)

November 19. J. S., æt. 14, suffering with asthenopia, had one drop of the solution instilled at 11:04, 11:04½, 11:05, 11:05½, and 11:06. At 11:20, the accommodation seemed but little disturbed, the pupils being widely dilated. 11:30, accommodation still undisturbed; anæsthesia of the cornea had almost disappeared, and the patient was quite sensitive. One hour later, the pupils were reduced somewhat in size, the eyes which before had felt painful and sore now were

quite comfortable; instillations of the hydrobromate of homatropia were resorted to, and the accommodation being fully suspended, it was found the patient had hyperopic astigmatism equal to $\frac{1}{48}$.

A number of other experiments to determine the effect of the drug upon the accommodative function of the eye yielded variable results; in no case, however, was the accommodation fully suspended by it.

November 22. Mrs. M. H., seventy-two years of age, senile cataract in both eyes. The right eye having failed first, was selected for operation. At 1:20 p. m., a drop of cocaine was instilled; at 1:21, another. At 1:25 the cornea was anæsthetic, and the speculum was introduced. Extraction of the cataract with iridectomy was done without any complaint whatever from the patient.

At 1:45, Mrs. B., æt. 56, with senile cataract in the left eye, was subjected to an instillation of the cocaine. At 1:46, a second. At 1:50 she tolerated the speculum, whereupon the cataract was extracted without iridectomy. The patient said she felt as if the eye were pressed upon. At 2 p. m. she said it felt a little sore, and she had a slight cramping sensation in the lids; no other expression of discomfort was made.

November 26. Miss C., æt. 33, has dense cicatricial opacity of the left cornea; she called to have it tattooed. Explaining to her the unsatisfactory results of that operation, and the possibility of improvement from a somewhat similar proceeding without the use of the pigment, viz., acupuncture, and obtaining her consent, I instilled, at 10:35, one drop of the solution, and at 10:40 I separated the lids with my thumb and index finger and began the process of acupuncture with a spear-pointed needle, which I carried on to my entire satisfaction, without any complaint whatever from the patient, and without the usual flow of tears. On releasing the eye, no suffusion existed; in fact, not the slightest evidence of pain or irritation was present, and the patient left the office with expressions of great satisfaction.

On the same day, Mr. M. brought his son, a boy 7 years old, who had been conducting some experiments with gun-powder, and had three large grains blown into the corneal epithelium. The eye was quite irritable, morbidly sensitive to light, and the boy would not tolerate inspection. The instillation of the cocaine was followed in five minutes by such complete abatement of all sensibility in the eye as to permit an easy inspection of the organ; in two minutes more he permitted me to press the lids widely apart with my fingers, and begin the work of removing the powder. To my astonishment he offered no objection, and the operation was completed without pain.

December 1, Mr. D., a machinist, had a small fragment of brass driven into the cornea three days ago. All attempts at removal had served to increase his sufferings. The eye had been poulticed. He now has violent keratitis. An instillation of a drop of the solution of cocaine into the inner canthus—it being impossible to separate the lids—was made at 9 a. m. At 9:03 he permitted the upper lid to be raised, when another drop was instilled, this time upon the surface of the cornea. At 9:05 his eye was opened, and he said it felt easy. At 9:07 he permitted me to press the lids open, and remove the piece of brass, which was done by an incision by the side of the foreign body with a spear-pointed needle, after which the point was turned in under it, and it was lifted out. Another instillation was then made, and the eye closed with some absorbent cotton and a strip of adhesive plasrer drawn from the cheek to the forehead. The patient returned at 1 p. m., to say the pain was returning, whereupon the dressing was removed, another drop instilled, and he was allowed to go home with his eye uncovered. It is proper to state that the foreign body in this case was about one-half the size of an ordinary pin-head. There was no further return of the pain, and the eye speedily recovered, the pupil being still dilated on the following day.

December 2, 1:15 p. m. Mrs. McH., 77 years old, had a cataract extracted from the right eye the first week in September. Has now an opaque capsule, an instillation of cocaine permitted capsulotomy four minutes later without pain.

Miss Curry. Iritis, excessive lachrymation. December 6, 11:25 a. m., instilled one drop; 11:25½, another drop; 11:27 patient opened eye before the open window; 11:27½, vascular injection perceptibly reduced; 11:28, patient exclaimed, with eyes opened full before the light, "It feels very good;"* 11:29, sat up erect, opened eyes, and with smiling countenance began to tell how difficult was her passage through the street to the office. 11:31 the vascular zone was so reduced as to show only the individual vessels in the limbus. At once the inferior canaliculus was explored into the tear-sac, with a Bowman probe No. 1. Patient did not wince, and denied pain. Withdrawing the probe, patient said, "I'm very much im-

*11:28½ overflow of tears ceased.

proved." She went out of the office with eyes wide open, uncovered, free from overflow of tears, exclaiming, "I am well, almost."

December 4. Mrs. Dr. Grady, of Columbia, Ky., had inferior extraction of cataract from the left eye early in September last. The dressing was worn eleven days; on removing it the eye was painful, red, flooded with tears, and extremely sensitive to light. This continued more or less until now. She is 36 years of age. Has had chronic intermittent fever, is much reduced in flesh, and very nervous, starting at the least sound, and shrinking from the slightest touch. Eye cannot be examined. At 11:53¼ a. m., one drop was introduced at the inner canthus, it being impossible to expose the ball; at 11:53¾ another drop was introduced, followed by a gush of tears; at 11:55 another drop, this on the cornea; 11:56 vascularity of conjunctiva diminished; 11:57 overflow of tears ceased; 11:58¼ insensibility of cornea to touch. She said, "It don't hurt. I don't feel it, but I don't like to think you are going to touch it." Inspection now showed occlusion of pupil, a band of connective tissue extending vertically through the iris. The iris bulged on both sides of this central line, quite into contact with the cornea, several large vessels passing through the line of cicatrization of the cornea into the connective tissue, which binds iris to lens capsule. Considerable cyclitis. At 12 the husband made the first entirely satisfactory examination since the operation in September. In reply to question, she said she felt no pain from the separation of the lids, pressure upon the globe, nor from muscular movement. 12:05¼, complete muscular control with lid voluntarily opened; 12:07½, slight evidence of returning sensibility to touch; 12:11½ she went to the glass to look at her own eye, which was now freely open. She exclaimed, "It looks awful without a pupil." 12:18, eye felt as if sand were in it, and she was anxious to go to the infirmary before full return of pain and sensibility to light.

(Notes taken and time kept by Mr. William J. Evans.)

December 5. Mrs. R., epithelioma of the lower lid, extending from the outer canthus about one-fourth inch along the free border of the lid, and occupying the palpebral conjunctiva quite back to the retrotarsal fold. Instillation of cocaine at 3:10 p. m. and 3:11. At 3:18, patient permitted section of the outer canthus. Being asked if it hurt much, she answered in the affirmative, though she had not cried out. While she was talking about it, the skin was divided near the lash with a Beer's knife, when the scissors was made then to grasp the cartilage, dividing it freely, and the retrotarsal conjunctiva being next divided, the cartilage, with the cancerous mass detached, was lifted out. The patient, though nervous and sensitive to the slightest touch on first examination, permitted all this without wincing, yet she said it hurt.

It is apparent that the cocaine does not permit entirely painless tenotomy in squint; that abscesses, cystic tumors, and epithelioma of the lid may all be operated upon with but very slight pain; that pterygium, foreign bodies in the cornea, iridectomy, capsulotomy, acupuncture, and other similar operations, may all be done absolutely without pain. Amongst the more painful manipulations in ophthalmic surgery are those attending the treatment of diseases of the lachrymal passages. These may be all done now without pain under the influence of cocaine. The best form for administration, in my judgment, is a solution of two grains of the salt to one drachm of distilled water. One drop placed upon the cornea is amply sufficient to produce complete anæsthesia in about five minutes. Two drops at intervals of one-half minute or a minute will produce as profound anæsthesia as may be desired for any operation upon the ball.

For tenotomy, it is but to instill a drop into the wound before dividing the tendon; decided effects follow the instillation inside of two minutes.

It will relieve the pain of iritis as promptly as will any other drug. It seems alike analgesic and anæsthetic. The first specimens used were made by Merck, of Darmstadt. It is now made of very superior quality in this country, by McKesson & Robbins, of New York.

Correspondence.

Salisbury Steak and Treatment.

Eds. Med. and Surg. Reporter:—

Requests have come to me from different physicians asking me to explain more fully about the "Salisbury steak and treatment." It will save me time and writing if you will kindly publish the following in the Med. and Surg. Reporter:

The Salisbury steak is made by taking the best slices of the "round" of the beef, and chopping it with *dull* knives. The object is not to cut, but rather pound the meat. A hand-chopper can be used, but if the patient is to live exclusively on this diet he would save much time and trouble by purchasing an American meat chopper and having the knives blunted.

The amount of meat used must, of course, be according to the amount a patient can eat. On pounding the meat, as directed, the pulp comes to

the top, and the tough, fibrous portion remains below. This pulp is scraped off and made into cakes—like sausage-cakes—or in shape like a good-sized steak, and *gently* broiled on a gridiron. It has been found that meat gently cooked is more digestible than raw. The fire must be good, so that the meat may be rapidly broiled—that is, be cooked on the outside and almost raw inside.

A little salt and pepper and a small amount of butter added makes a not at all unpalatable dish, and one which contains *all* the strength of the beef, with the tough, indigestible portion entirely separated. This diet is used exclusively in chronic cases, by physicians professing to treat according to the Salisbury method. They use but few drugs, and what they use are mainly tonics. I hope to accumulate the history of cases treated by this method, and if I do so will publish them with pleasure.

This diet is used not only in diseased digestion, but diseases of liver, kidneys, stomach, bowels, nerves, etc., and I have seen remarkable results in persons suffering from widely different diseases.

W. M. Hepburn, M. D.

Freehold, N. J.

The Elevation of the Medical Profession.

Eds. Med. and Surg. Reporter:—

Permit me, through your valuable journal, to express my views in regard to what is necessary to continue the advancement, and elevate the dignity and honor of our noble profession. I say continue the advancement, for the reason that if the past is compared with the present, we cannot help but see great advancement in many respects. But it is also very evident that we are far off from having reached that desired point of dignity and respect that justly belongs to our profession. Many different opinions are being at present advanced on this worthy and important subject. Some seem to think it absolutely necessary to be an A. M. in order to become a qualified physician. In my opinion a requirement of this kind would be a great mistake, as it would have a tendency to shut out from the profession some of the best of intellects, simply because they would not have the necessary funds to attend some school and receive the degree of A. M., while at the same time they might possess a good primary education; in fact better than some that had the funds, if not the brains, to receive this degree. What is true of one degree is also true of another. That the degree of M. D. is not at all times conferred by true merit is sufficient proof to declare the same fault in the degree of A. M. Therefore this is not a force to depend upon. Let us take the material that has force of intellect, no matter whether rich or poor the degree of A. M. or not if they have a good primary education to start with, and the *grit* and determination to qualify themselves in all the necessary branches to make competent and successful physicians. Push, energy, and intellect, backed up by good judgment, is the jewel that we want in order to elevate the dignity and standing of our profession. Inaugurate plans whereby we can reach this important element, and we are then on the right road to success. The physician when he leaves college, after having the degree of M. D. conferred upon him, should not feel and think that he is finished, but should realize the fact that he has but commenced, and should act accordingly, continuing to study and search for knowledge, using every effort to elevate himself both intellectually and morally, and thereby his chosen profession. Some think the physician is not respected as he should be. This is too true; but it does not apply to all. It depends a great deal upon the physician himself. If he is a faithful student, attentive to his business, guarding all his acts and words with good judgment, he must and will command the respect of the community in which he resides.

This great and important duty devolves wholly upon himself, as the degree does not demand the respect from the people it deserves. *Why does it not?* Simply because the degree of M. D. has not been respected by the law of the country until very recently. Consequently, the regular and legal physician was, and, *in fact, is still*, classified in the minds of the people with all the quack, horse and cow doctors of the land. Consequently, if the physician of to-day desires to stand in the mind of the people above these quack doctors, he is obliged to establish qualifications that will place him there independently of his degree.

The next and very important duty devolves upon our colleges. The time that the student serves before he enters college is far too short. In place of admitting them from the blacksmith-shop, the shoe-shop, etc., they should be required to study at least five years under the directions of some regular physician and be examined in regard to their preliminary education before they are received as students at college. If this plan was adopted by the colleges, the registry law enforced, and the respective duties of the physicians adhered to, we would have the power to place the profession in standing where it justly belongs.

C. W. M.

Mainesburg, Tioga county, Pa., December 22, 1884.

The Naval Medical Society.

Eds. Med. and Surg. Reporter:—

The late meeting of this society at the rooms of the Museum of Hygiene, Washington City, Dec. 4, was presided over by Surgeon John M. Browne, in charge of the Museum, and treasurer of the approaching International Medical Congress, Surgeon Charles H. White, Secretary. Among the Fellows in attendance were Surgeon General Francis M. Gunnell, Chief of the Bureau of Medicine and Surgery, James M. Flint, M. D., of the Albatross, C. H. H. Hall, Passed Assistant Surgeon, and Professor H. G. Beyer.

The proceedings and discussions of the society which has a monthly re-union, with the exception of a few months during midsummer, are exceedingly interesting. The papers read continue to present topics instructive and of practical interest to the surgeon and physician. For several weeks past Professor H. G. Beyer has delivered a series of lectures, seven in number, on the "Development of the Chick," illustrated by diagrams, engraving, and models. The theories and opinions of Professor Huxley were most frequently quoted by the learned lecturer, who traced with admirable clearness the development of the higher

orders of vertebræ from the lower series, viz., fish, birds, etc. He described minutely the comparative anatomy and physiology of the fibro-cartilaginous and nervous systems of fishes and birds, and mammals, and proved the wonderful connection between tissues and organs of the inferior and higher orders of the animal kingdom, *e. g.*, that the fish's gills constitute the structural basis of the bones of the ear of the human subject.

The professsion of the metropolis of our country may be congratulated to have presented to them such themes of biological study, since only three universities of America have, as yet, founded chairs for such instruction—that of Virginia was established in 1849, and is filled by Professor I. L. Cabell, President of the National Board of Health.

Among other papers read were:

1. "Cinchona Cultivation in India," by Dr. Geo. W. Wood.
2. "Snake Bites in India," by Geo. W. Wood.
3. "A Memorial Sketch of the Life of the Late Dr. James M. Ambler, U. S. N.," by Dr. Frederick Horner.

The consideration of the history and treatment of a case of acute albuminuria introducing a discussion on the use of opium in such cases, by Dr. C. H. H. Hall, was deferred to the next meeting in January.

During the interval since the writer's attendance at a meeting of the Society marked evidence of the growth of the Museum of Hygiene was noticed, especially in the models of improved methods for the lighting and ventilation of decks and the state-rooms of officers on board ship, and also others presenting a critical analysis of various sewer pipes, showing their construction and defects, the latter due either to the ignorance or cupidity of the manufacturer—though often the occasion of disease and death to our unsuspecting citizens. The library of the Museum continues to receive valuable contributions of books, periodicals, and exchanges from home and foreign publishers. An annual volume, including a synopsis of medical and surgical cases occurring on board of war vessels and steamers of the various squadrons is published by the Bureau. Since nearly one-half of the surgeons afloat and in active service and retired are Fellows of the Naval Medical Society, such publications, with those of the *Transactions*, must contain valuable information.

Surgeon Browne proposes to furnish an interesting exhibit at the World's Exposition in New Orleans of collections from the Museum.

It may not be unbecoming to add that the present efficient Surgeon-General of the Bureau of Medicine and Surgery of the Navy is likely to maintain the high standard of the corps, and will have about him no official unworthy of trust—at least of the mercenary class.

F. Horner, M. D.

Marshall, Va., December 16, 1884.

—The Paris Academy of Medicine, we learn from the *Gazette Hebdomadaire de Médecine et de Chirurgie*, has elected M. Charpentier, the obstetrician, to membership in place of the late Dr. Fauvel.

News and Miscellany.

Royal Doctors.

The *Lancet*, December 6, 1884, says:

It has always been the custom of intelligent princes to acquaint themselves with the studies of their time; and this fact, together with the other advantages of their position, has given them much influence in the advancement of learning. It is new, however, to find them taking a more particular interest in the life-work of their fellowmen, by adopting certain callings as their own—at all events, if we except the profession of arms. This latter, from its close connection with self-preservation alone, other matters being left out of sight, necessarily affects all classes of any people, especially in its earlier history. The peaceful developments of national work, again, belong to an age in which a wiser and more considerate law of comity has succeeded the rule of force, and in which the army has become a highly skilled and heroic form of international police, obedient to that law of order. This, at least, is what ought to be, and what we think has begun to come to pass. It is in keeping with this advance in civilization that members of royal houses in our day have been attracted to take part in forms of labor which, from their wide application, must often present themselves to the minds of all who have the oversight of nations. The name of Prince Albert Victor will shortly be placed upon the student-roll at the Middle Temple, and that of Prince Charles of Bavaria is to be counted among the medical graduates of Austria. It is in various ways advantageous to professional life that royal and noble men should employ themselves in it; and this is no less true of the art which guards the public health than it is of that which stands in defense of civil rule, or of their sister calling which exists to maintain the purity of our common faith. Let us speak of medicine in particular. It is clear, in the first place, that the adhesion of great names cannot in itself ennoble any profession. On the contrary, a profession exercises its government on all who espouse it. Their work is done by its direction, and it is and must be honored, not because of those who do the work, but because of the work which is done. This is pre-eminently true of medicine. Not less true is it that success in its aims cannot be said to wait upon or follow the introduction into it of distinguished persons. The Darwinian law has been well illustrated in its history; it has lived through a long and patient evolution, and has come to be what it is by contact with its circumstances, and, so far, with but little State encouragement. How, then, will it benefit by being connected with the first social and political rank? Partly in this, that the example of men whom circumstances have made independent of the primary needs of existence, and who have been surrounded with many of the less fruitful pastimes of leisure, when they earnestly devote themselves to professional work, is valuable to their fellows. It should impress on all others who are similarly engaged that the highest aim of medicine is not mere gain, either of wealth or of social reputation, but that it touches the life and gratitude of persons and of peoples

in all their interests, physical, social, and moral. The great importance of hygiene among considerations of national management has been recognized by our institution of a Local Government Board, and by many smaller measures. Other countries have acted in a similar sense, and it is satisfactory to find that, with some at least of those who represent the highest political influence, this interest is more than theoretical. We congratulate the royal doctor and others of like mind upon their choice, and we do not doubt that, exercising as fully as they can the varied powers of their profession, they will find that they also are gainers, and that no vocation educates more equally or even more highly the stronger and the finer faculties of our human nature.

Comfort for Invalids Traveling.

An article on Winter Health Resorts, in the *Practitioner*, contains some valuable hints to invalids, to relieve the discomforts found by them abroad in traveling and at hotels. One of the discomforts of the long railway journey which is required in order to reach most health resorts, is the constant vibration and the fatigue it occasions. This may be, to a considerable extent, avoided by the proper use of air-cushions. It is well for an invalid to be provided with two or more of these. The one to be used for sitting on may be either round or square, or may be either with or without a depression in the centre. Air cushions of a horseshoe shape and furnished at the ends with tapes so that they can be opened out and again tied together, are most useful. One of them tied round the loins supports the back, and another just like a collar round the neck supports the head, so that in whatever position it is put, sideways, backwards, or forwards, it always rests against the cushion.

Another comfort to invalids traveling is an India rubber bag for hot water, with a flannel case. Indeed it is well to have two of these if the invalid be very delicate. If any sudden chill is felt, or if any pain in the chest or elsewhere should come on, relief is often obtained by the application of a hot-water bottle which takes the place of a poultice. The invalid's friend can easily get these bottles filled with hot water by giving a small gratuity to the guard of the train, and asking him to fill them when stopping at a station. Stoppages occur on the French lines at least every two hours, and the water retains its heat quite long enough to make it useful between the stoppages.

Another thing which is a great comfort is an eider-down coverlet, which should be both long and broad. It is useful, not only during traveling by land or by sea, but during a stay at the health resorts. One would imagine that an eider-down quilt would be bulky or inconvenient to travel with, but this is not the case. In most "hold-alls" there is a large pocket, and the eider-down quilt can be readily rolled up and put into this pocket. When the straps are once around it, it can, from its softness, be easily pressed into a small bulk.

Two other things that the invalid should not be without are a small etna, with can or kettle, to boil water, and a small package of tea, also beef-tea in a portable form, with a small box of biscuits. Even when such things are to be had at a hotel, the prices put upon them are sometimes so exorbitant that the invalid would hardly care to order them, however much he might desire them.

A War on Quacks in New Jersey.

A dispatch from Trenton, dated January 6, says that physicians in the northern part of the State have been busy for several weeks past preparing a bill to be presented to the next Legislature, that will propose to lessen the growth of quackery and the licensing of unqualified physicians.

The bill as drawn is said to be satisfactory to both schools of medicine. It is in nineteen sections, and provides for the appointment by the Governor of a State Board of Examiners and Licensers.

"It is our purpose," said a prominent physician, this morning, "to subject every graduate or applicant for a diploma to a rigid examination, which will be based mainly upon the fundamental principles of the profession. This plan will, we think, afford better protection to the community, and in time will do away with the bulk of quack practitioners."

The Board to be appointed by the Governor will consist of nine members, who must be graduates of a medical college, and with not less than five years' practice in medicine or surgery.

Seven members are to be chosen from a list submitted by the State Medical Society, and the other two from a list submitted by the Homeopathic State Medical Society.

Two sets of questions will be prepared, each set respectively by the regular and homeopathic societies, and the examination will be in anatomy, physiology, histology, general chemistry, pathology, principles and practice of medicine, surgery, and obstetrics.

The Microbe of Yellow Fever.

At a recent meeting of the Paris Société de Biologie, M. Rebourgeon gave some additional information as to the researches of Professor Domingos Frére, of San Janeiro, on the microbe of yellow fever. He believes that a former communication to the Académie de Médecine has not met with the attention it deserves. M. Frére, he observes, is fully entitled to priority in this discovery, the reality of which is shown by the fatality which attends the inoculation of the microbe in animals, which is very easily brought about. A still more important result is the attenuation of the virus by means to be hereafter divulged; inoculation of this attenuated matter only produces temporary disturbance of the animal's health. Informed of the experiments, the Emperor of Brazil ordered that 600 workmen, constantly occupied in the midst of highly-infected centres, should be inoculated. While before this period ten men out of every thirty had been attacked with the disease, none of those inoculated have suffered, except four of five men, in whom the operation was performed by the lancet instead of by the Pravaz syringe. M. Bouley drew attention to the importance of giving the widest publicity to these statements,

and stated that the attenuated virus was about to be taken to Senegal, where last year twenty-three out of twenty-five French physicians died of yellow fever.

Items.

—Bourgeois, in the *Bulletin Général de Thérapeutique*, recommends the subcutaneous injection of vaccine lymph in place of the endermic method. He has employed the new method with success.

—A department of hygiene and bacteriology has been opened in connection with the chemical laboratory of Professor Fresenius at Wiesbaden. Dr. F. Hueppe, who has done much work under Dr. Koch at Berlin, has been appointed to the charge of this department.

—According to the *Med. Herald*, Dr. Thompson has found the injection of hot water into the nostrils efficacious in arresting epistaxis. The use of hot water as a hæmostatic in other cavities of the body is well known, and it would seem that it is beneficial in hemorrhage from the nose also.

—The *Progrès Médical*, for the 8th of November, 1884, is exclusively occupied by an account of the medical schools, hospitals, etc., in France, and the various lectures delivered at them. It contains more than fifty pages of closely-printed double columns, quarto, and is sold separately; price, sixpence.

—Dr. Collingridge, the Medical Officer of Health for the port of London, has been engaged in Paris in an investigation into the nature and characteristics of the cholera epidemic, the conditions under which it existed, and the special arrangements made for combating the disease, both as regards hospital and sanitary administration.

—Professor Trastor, of Nantes, employs the vapor of glycerine with great advantage when a cough becomes distressing or fatiguing. Fifty or sixty grammes are placed in a porcelain capsule and evaporated over a spirit lamp. An enormous amount of vapor is disengaged. In phthisis and various other affections much relief is gained in this way.—*Revue Médicale.*

—In the *London Med. Times*, December 13, 1884, Mr. Clement Lucas reports a case of irreducible right femoral hernia—operation for radical cure by excision of omental and serous sacs, primary union; and also a case of right inguinal hernia, containing ovary and fallopian tube—operation for radical cure, removal of ovary and tube, and excision of sac.

—In November last Königsberg and Tübingen each lost a distinguished member of the medical faculty. Professor von Wittich died at Königsberg, and Professor K. von Vierordt died at Tübingen. Both of them have long been distinguished in matters connected with respiration and circulation. Professor Kolbe, of Leipsic, author of *Lehrbuch der Organischen Chemie*, died at Leipsic, on November 27th.

—An inspector of meat has been condemned at Halle to a year and a half's imprisonment in consequence of his careless inspection of some pork, in consequence of which ninety persons, inhabiting the village of Strenz-Naundorff, became affected with trichinosis, twelve of the number dying. He had reported the pork in question as free from trichinæ, while he had only examined six of the thirty specimens submitted to him, and these very carelessly, so that a subsequent examination proved that they were infected.

—Fifty years ago there were hardly any such things as dispensaries or out patient departments. Now, in every large city a fourth of the inhabitants (if we go by reports) are annually treated for nothing. The effect has been to make the early attainment of professional skill more easy, but the early attainment of paying professional practice more difficult.

—Studied by their power to prevent the development of micro-organisms in sterilized broth, the biniodide of mercury stands at the head of the list of antiseptics. It is three times as strong as the bichloride. A solution of a $\frac{1}{40000}$ strength renders life impossible to any form of microbe, says M. Miguel, while of bichloride the strength must be $\frac{1}{14000}$. Iodide of silver is also more powerful than the bichloride of mercury.

—A sad case of the suicide of a young surgeon is reported from Vienna. Having been accused of treating an inflamed finger unscientifically, he was fined and sentenced to repeat his examinations. This novel and terrible sentence appears to have so affected him that he drowned himself in the Danube. Meanwhile the verdict was appealed against, and referred to the Doctoren-Collegium, who decided that the dead surgeon's treatment had not caused the loss of the finger in question; and so the High Court acquitted him.

—Drs. Klein and Gibbes have completed their inquiries and submitted a short preliminary report. They state that Dr. Koch's comma-shaped bacilli are not peculiar to cholera, but occur also in other diseases of the intestines; that these bacilli do not behave in any way differently from other putrefactive organisms, and that inoculations of animals with recent and old cultivations of comma-shaped bacilli, as well as with cholera excreta, produced no effect.

—In England, recently, several children were observed to oxhibit all the symptoms of poisoning by morphia. On searching the children's pockets, the source of their illness was made apparent. It seems that some boys stole a seven-pound packet of cough-lozenges, containing morphia, from a wholesale chemist and druggist of Chester, ate a large number of them, and distributed some among their school-companions. The children all recovered.

—At a recent meeting of the Anatomical Society of Paris, M. Babés read a short paper (*Progrès Médical*, December 6), on the comma bacillus in cholera, based on observations made in M. Cornil's laboratory from material obtained during the recent epidemic. His observations, which relate to the morphology of the bacillus and its behavior in cultivation, are for the most part confirmatory of those of Koch. He did not succeed in finding the bacillus elsewhere than in the intestine.

MARRIAGE.

NOBLE—ROSE.—December 18, 1884, at the residence of Thomas Webber, esq., Adobetown, Montana, Rev. Hugh Duncan officiating, Dr. A. G. Noble, of Glendale, Beaverhead county, M. T., and Miss May E. Rose, of Adobetown, Madison county.

THE

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ORIGINAL DEPARTMENT.

LECTURE.

SOME POINTS RELATING TO EXCISION FOR HIP-JOINT DISEASE.

BY C. B. NANCREDE, M. D.,

Professor of General and Orthopædic Surgery in the Philadelphia Polyclinic and College for Graduates in Medicine.

Gentlemen: This case of hip-joint disease presents some special points of interest, which I shall briefly notice. The history illustrates that which too frequently takes place. First in importance is the fact that the disease progressed favorably under treatment, which was therefore dispensed with at too early a period—at a time when, if persevered in, permanent recovery would have probably ensued. Second in importance is the manifest fact that, had this case terminated by a cure, even without any true articular anchylosis—much more had this existed—a degree of deformity would have persisted, for which there was no necessity. The vast majority of surgeons (and this little patient has been treated by some of the best in the country, having been in more than one well-known children's hospital) consider their active duty over in a case of hip-disease when the child is placed in bed with a weight attached for extension. Now mark what occurs. While the joint's movements are painful, the child will lie down; but just so soon as the treatment shall have relieved these symptoms, the patient sits up in bed, *i. e.*, *keeps the joint flexed*, thus giving full play to the ilio-psoas, rectus femoris, and tensor vaginæ femoris muscles to become contracted permanently, and *they become so*. Mark still further that pressure over the region of the diseased joint creates, at least, discomfort, so that the child rests chiefly upon the sound buttock, thus favoring and increasing the deformity, resulting from anchylosis in the adducted position; so that from these two causes, when the patient gets up the surgeon is disappointed at finding a marked deformity. This was due often also to the omission of lateral support (as by sand-bags) to the limb as it lay in bed, and that no "cradle" was ordered to ward off the pressure of the bed-clothes from the weakened muscles.

My practice is always, under ether, to put the limb as nearly as possible in a perfect position; dividing muscles if necessary, but of course using nothing beyond gentle—although firm—pressure in effecting my point, I do this, not only on account of the future usefulness of the limb, *but to relieve pain*. Many of the most painful joints when "malposed" become comparatively *painless* when placed in good position. I then keep the child on its back by means of a long splint on the *sound side*, extending from the axilla to the foot. A pad under the diseased buttock so as to exert, by the extension, a special stretch on the ilio-psoas muscle, and arrangement of the line of traction of the extension, so as to gradually overcome the adduction, will effect what the first reposition left undone. When I treat a case from the outset, I do not allow this malformation to occur, because I get my patients up with a splint, high slide, and crutches, in a few weeks, keeping them in bed only until the more acutely painful condition of the joint is relieved.

The third point of interest is, that this child's

joint, under ether, seems fairly free in its movements, and that its surfaces did not seem disorganized until I made such free and continued movements as to displace the granulation tissue from the inflamed and carious bone, which was more or less covered in by it. This is not uncommon, even with the inexperienced. A fatally disorganized joint in which suppuration has occurred may deceive, by its apparently smooth, free movements and the absence of bony grating, the tyro into thinking that the profuse discharges and numerous sinuses after all are the result of abscesses not communicating with the joint.

"Starting pains" are beginning to trouble this little patient, and are of peculiar significance. Just in the act of falling asleep, or even while quietly slumbering, the child will suddenly awake with a shriek and a start, and clap its hands to the sore joint, now the seat of an intense though fleeting pain. Perhaps even before the nurse can get to the bedside, the little child again sleeps. By this symptom is indicated hyperæmia and even ulceration of the sublamellar tissues, causing, through direct nervous connection, these reflex clonic spasms of the surrounding muscles.

Commencing amyloid change of the liver was also detectible in this child, and a profuse, exhausting diarrhœa, with hectic, clearly indicated operation or a rapidly fatal termination.

I accordingly excise this joint, and you see that the femoral head is most extensively diseased, and this sinus is the remains of an old interpelvic abscess, the result of extensive disease of the acetabulum, the bottom of which is perforated, while you see this small fragment which I remove in the form of a sequestrum.

As to the indications for excision in hip disease, the history of this case shows that if after keeping the joint at rest by quiet in bed with extension, followed by the promotion of exercise in the open air—the joint being still kept at rest—good food, tonics, and change of air, notwithstanding abscesses form, the health fails, hectic, diarrhœa, starting pains, and commencing amyloid disease show themselves, experience proves that the joint is hopelessly damaged, and that excision or amputation alone can, in most cases, save life.

If extensive amyloid trouble of the liver and kidneys be present, amputation is the better procedure; but when these conditions are incipient, excision is not contra-indicated. This child has since done well.

[The professor described at some length the splints that he preferred in the treatment of morbus coxarius, and went into details that have been omitted for want of space.—Reporter.]

Communications.

THE THERAPEUTICS OF HOT WATER.*

BY CHARLES P. KING, M. D.,
Of Newark, Ohio.

The subject of this paper is the use of hot water as a therapeutic agent. There are many points of interest that I will be obliged to omit entirely, and others I can allude to only incidentally, as the time allotted me is limited. I would like to discuss at length the various modes of administering hot water, such as the hot-air, Turkish, steam, and medicated baths, the mercurial bath, and some others; and while they have a very important bearing on this subject, they are rather beyond the scope of this paper. The use of water in some form or other in the treatment of disease dates back to a very early period.

Our earliest writers make mention of it, and from the days of Hippocrates and Galen down to the present it has had its adherents, and many look upon it as the great panacea for "all the ills that flesh is heir to."

At different times it has been carried to extremes, and has been the instrument in the hands of quacks and charlatans of doing much evil in the world. There are some present who remember what a hold the Thompsonian system had upon the people some years ago, and, in fact, it almost superseded all other systems of treatment for a time; but like many other isms of the kind, has had its day, and been long since consigned "to the tomb of the Capulets."

That the use of water in many of its forms is highly beneficial in the treatment of disease, no one, I think, will for a moment deny. But it should have a place among our other remedies as being but *one* of the *many* means by which we control disease, and we should be very guarded lest we run to extremes in our advocacy of it.

There is fashion in medicine like in everything else; certain modes of treatment are popular because it is fashionable to use them; we have our fashionable doctors and our old fogy doctors; the former being carried away by everything that is new and fashionable—the latter are looked upon as relics of the dark ages whose opinions are entitled to no respect whatever at the hands of their fellowman.

*Read before the Licking County Medical Society.

While many systems of medicine have had their day and been discarded from use, the use of water as a therapeutic agent seems to have withstood the ravages of time, and to-day stands in the front rank as a remedy, both in medical and surgical practice. It is only within the last decade, however, that *hot* water, in contradistinction to cold, has become so generally used. In fact, it has superseded entirely the use of cold water in very many cases.

For convenience of discussion, I will divide my subject into three heads :

1. Use of hot water in medical practice.
2. In surgical practice.
3. In obstetrical practice.

There are many forms of disease in which *hot* water is highly efficacious.

In fevers, for example, many prefer hot water sponging to the cold—the hot to the cold pack.

In all the exanthematous diseases, hot water is not only soothing to the patient, but is also a great benefit in reducing the temperature.

In infantile convulsions, great benefit is to be derived from the hot bath ; in inflammatory affections of the abdominal organs, the use of hot applications has unquestionable value ; in peritonitis, for example, cloths wrung out of hot water, applied over the abdomen, are of great service, not only in allaying local inflammation, but also the general temperature of the body is thus reduced. In inflammatory affections within the chest, such as acute pleuritis and pneumonia, the hot, wet packs are very serviceable ; in habitual constipation, and also many forms of chronic dyspepsia, drinking freely of hot water is of great benefit. Some of the most obstinate cases of constipation have been relieved in this way. As a remedy in dyspepsia, I cannot speak too highly in its praise. I have now under my professional care several chronic cases of dyspepsia which have resisted everything in the way of medicines, and which are now entirely cured by the use of hot water alone. I advise drinking a good-sized coffee-cupful of hot water (as hot as can be borne) three times a day, one half hour before each meal.

In some forms of nervous headache the drinking freely of hot water is of great service; but very recently I saw a statement that many of our members of Congress have been drinking hot water several times a day, instead of their usual potations of whisky.

In some forms of headache, accompanied by determination of blood to the head, the use of hot water freely to the head is of great benefit.

There are many other conditions of the system in which hot water is of great service in medical practice, but for want of time I will be obliged to omit mention of them.

The uses of hot water in surgical practice are both numerous and important. In surgery, as in every other department of our profession, simple methods of treatment commend themselves to the careful practitioner. For this purpose I desire to direct your attention to an agent simple, cheap, and of easy application ; this is the use of hot water.

It is to the value of hot water as a *hæmostatic* agent, however, that I wish to direct chief attention, especially to its power when the bleeding is from small vessels, or of that character denominated capillary bleeding or oozing—a fact first brought prominently to the notice of the profession by Dr. Emmet, of New York, in his great work on gynecology.

He has been magnanimous enough, however, to give the late Dr. Pilcher, of Detroit, Michigan, the credit for having first called his attention to it ; he says "that while operating in 1859 to close a vesico-vaginal fistula, where free incisions were necessary, the progress of the operation had been greatly delayed in consequence of oozing of blood; this could be temporarily checked by pressure and ice, but in a few moments reaction would take place and the bleeding be as great as ever. Dr. Pilcher being present, he suggested that a sponge probang be dipped in hot water and applied several times to the bleeding surface. This was done, and the bleeding promptly arrested.

Cold water and ice even are much less efficient in checking hemorrhage than hot water. The immediate effect of cold is to *contract* the bleeding vessels, but this contraction is very soon followed by the opposite condition, dilatation ; one that continues for a considerable period, and one that favors further hemorrhage.

Besides, it is a fact well established that prolonged cold lowers the reparative power of tissues. The immediate effect of heat is to dilate the vessels, but it afterwards contracts them.

The manner in which hot water arrests hemorrhage is that the clot formed in the mouth of the dilated vessel is held so firmly in position by the subsequent contraction as to prevent its being readily dislodged. One of the principal advantages that hot water has over all other agents employed, is that it does not interfere with the subsequent healing process ; in fact, it is thought by many to promote it. As a dressing for wounds, contusions, and inflamed parts in general, it is

invaluable. The cold-water treatment of wounds is very often highly injurious, the circulation in the wounded parts being too much depressed, which of necessity will hinder repair, and sloughing is often induced.

In ovariotomy there is frequently a good deal of oozing of blood that must be arrested before closing the abdominal cavity. In such cases the frequent application of sponges dipped in hot water will generally promptly arrest the hemorrhage, even in cases where persulphate of iron has failed.

In cases of removal of uterine fibroids, the injection of hot water into the uterus succeeds in arresting hemorrhage which would otherwise require the use of the tampon. After amputations where there is much oozing of blood from stumps, in excision of mammary glands, and various other operations, hot water is of great service.

In hemorrhage from the nose, the injections of hot water have proved of great service in the hands of some surgeons; in pulmonary hemorrhage the inhalation of hot water in the form of steam is said to be a most valuable agent. Prof. Hamilton, of New York, has of late years strongly urged as a preventive measure against traumatic inflammation the use of warm water instead of cold, and of immersion as superior to irrigation. He places the injured part in a water-bath, constantly maintaining a temperature of 90° to 95° F., and keeps it there from one to three weeks. When from the position of the injury this is not practicable, he covers with several thicknesses of sheet lint, previously saturated with tepid water, and encloses this with oil silk. When the bath can thus be employed, little or no inflammatory reaction takes place, and gangrene is very successfully arrested, even in exceedingly severely lacerated and contused wounds of the extremities. Dr. H., from an extended experience, much prefers this to the cool or cold prophylaxis of inflammation. In painful hemorrhoids, where there is much tenderness and considerable hemorrhage, the use of hot water locally as well as by injections, is not only exceedingly grateful to the patient, but is also a prompt and efficient means of arresting severe hemorrhage.

The uses of hot water in obstetrical practice are as important as in medical or surgical practice. Our leading gynecologists are fully aware of its value, and make extensive use of it by vaginal injections to relieve congestions and inflammations of the pelvic organs. And while (as Dr. Emmet says) "it is not the cure-all for these affections," it is of such great value, that were its worth generally known much of the cauterization, intra-uterine medication, scarification, and other operative measures, would be done away with, greatly to the relief of suffering women."

Hot water injections, or the hot douche, is one of our most effective measures to be used in chronic metritis.

Large quantities of water, and frequent applications, are needed to produce the best results.

Excellent results are often obtained by the alternate use of the hot and cold douche.

In severe cases of hemorrhage resulting from abortion, it is an admirable remedy in checking the hemorrhage, by producing rapid and permanent uterine con'ractions.

Not long since, I succeeded in controlling one of the worst cases of uterine hemorrhages I ever saw by the use of hot-water injections thrown into the uterine cavity.

In severe cases of post-partum hemorrhage the hot-water injections into the uterine cavity are of great service.

In obstinate cases of chronic inflammation of the os and neck of the uterus, the frequent applications of hot water into the vagina are of great service; in cases of leucorrhœa resulting from a want of tone in the mucous and muscular tissues of the vagina, hot-water injections are par excellence the remedy mostly to be relied upon. After severe labors, where there is much tenderness of the parts owing to the great strain, the daily injections of hot water are of great service, not only on account of their soothing effects, but also as a means of preventing inflammation of the uterus and its appendages.

I am satisfied that many cases of child-bed fever, following protracted labors, might be prevented entirely by the frequent use of hot vaginal injections.

Says Professor Lusk: "Putridity creeps up from the vagina, which should be thoroughly washed out. In normal labor the hand, and sometimes instruments, carried into the uterine cavity, may necessitate washing, which may be the direct means of saving life. Wash out the uterus thoroughly with carbolic acid solutions, or other disinfecting fluids."

Since the introduction of this plan by our Continental physicians, the per cent. of cases of child-bed fever has been very materially diminished.

Dr. R. H. Gunning, member of the Royal College of Physicians of London, recently read a paper before the Medico-Chirurgical Society of Edinburgh on the "Gynæcological Uses of Hot Water," from which I clip the following:

"Ladies suffering agonies in menstruation are better relieved and cured by very hot hemicupia than anything else. Of course, complications must be attended to at the same time; the bowels need attention, or a weak circulation or cold extremities may need a hot stimulant—hot punch; but such complications being attended to, a hot hip bath is the safest means, not only in relieving painful menstruation, but when defective or in excess—used for successive periods—the first is increased, the second is diminished. In acute leucorrhœa or irritated rectum, in the tenesmus of diarrhœa, besides the hip bath, hot water simply or medicated with opium can be injected into the passage. I even use a very warm hip bath after labor, when the lochia are excessive and the patient is feverish. In this way, ablution is effective, the parts are soothed, and a source of puerperal fever, especially in warm climates, is removed. I have the patient carefully lifted and set down in a very plentiful and hot hip bath. A recent illustration of the use of hot water occurred to me in Italy. A lady's absence from the table at the hotel was daily regretted by her husband and friends, and medicines were doing her little good. I found she had had an abortion about a month ago, and that the hectic and lassitude were due to the painful post-partum hemorrhage. I advised her to sit down at once, and again and again, in very hot water, and also to inject it plentifully. She was soon relieved, and on the second day was at the table and out everywhere, quite well."

Playfair invariably recommends intra-uterine injections in the puerperal bed. He says: "They should never be omitted in all cases in which self-infection is possible; and, indeed, even when there is no reason to suspect the presence of a local focus of infection, the use of antiseptic lotions is advisable as a matter of precaution, as they can do no harm, and are generally comforting to the patients."

It is not necessary to use intra-uterine medications in *all* cases in the puerperal state. Where the system begins to show evidence of general poisoning, and there is reason to suspect a putrid material within the uterus, then this mode of treatment is in the highest degree imperative.

There are many other conditions in which the use of hot water is of great service in obstetrical practice, which I would like to refer to, but fear that I have already taxed your time and patience entirely too long.

In conclusion, I would say that whatever may be the mechanism through which the effect is accomplished, I have been taught, both by experience and observation, that hot water is a simple, cheap, and effective means for attaining good as well as permanent results, in both medical, surgical, and obstetrical practice.

MISCARRIAGES.

BY E. H. COOVER, M. D.,
Of Harrisburg, Pa.

The frequency with which miscarriages occur, the alarming extent to which abortions are procured by females, married and single, upon themselves, to avoid the care of children upon one hand and shame on the other, the danger and suffering entailed upon them, and the increased number of embryonic lives wantonly destroyed, call for a careful study of the symptoms, diagnosis, and treatment, by the conscientious practitioner who looks upon the practice of his profession in a higher sense than as a mere source of pecuniary advantage.

It is a subject which I consider has been in a great measure neglected, although several very eminent professional gentlemen have given to the annals of medical science opinions, the result of experience, which have proved valuable acquisitions, and by their timely precepts saved many valuable lives. With a view to the furtherance of useful knowledge in this direction, and in the indulgence of a hope that an an experience gathered in a large practice, covering a period of over thirty years, may enable me to throw some additional light upon a subject which must be of interest to every physician, I offer the following, and in doing so beg the indulgence of the reader for all deficiencies:

Causes.—The causes which lead to the destruction of embryonic life, and the premature arrest of utero-gestation, may be classed as predisposing and exciting. Among what may be termed predisposing causes may be enumerated general irritability of the system, deficiency in the nutritive function, the susceptibility of the uterus to sympathetic affections, *uræmia*, and some forms of *toxæmia*.

The exciting causes are the application of violence either directly to the uterus itself or to some distant organ which may in return by a sort of reflex action exert an influence upon it, jumping from a height, falling down stairs, sudden fright, blows upon the abdomen or back, the internal introduction of knitting or crochet needles, the use internally of highly stimulating decoctions and active purgatives, all form exciting causes, and are fruitful agents in bringing on abortions.

My own experience, however, has been that of all causes, except those intentionally procured, *reaching overhead* is the most frequent source, and a habit which every pregnant female should guard carefully against.

Symptoms.—The symptoms by which abortions are preceded are as varied in their peculiarities as the causes which lead to them. There are, however, a number of general symptoms which are unmistakable in their character, and point significantly to the commencement of an abortion. There is pain in the back and pelvis, coming on and going off with the character of labor pains. In many cases it will only be a backache with feeling of dragging and weight in the pelvis until the discharge of blood becomes free, sometimes sudden and copious, at other times slow and gradually increasing; then clots are passed, and the woman feels exhausted. Sometimes the pain is slight and the hemorrhage copious, and at other times both are slight, yet continuous, until the ovum is destroyed without expelling it.

An examination now shows the os dilated more or less; the internal os, as a rule, is further dilated than the external os. The cervix seems conical and directly continuous with the line of the body of the uterus; where the process has lasted considerable time, a cadaverous odor in the discharge, or on the hand after an examination, is noticeable, which, in itself, is sufficient evidence of the presence of a devitalized ovum.

In many cases where the female does not know herself to be pregnant, and having been accustomed to copious menstrual discharges, a hemorrhage, occurring after having passed one or more periods, may be mistaken for an excessive menstrual discharge. This is particularly the case when the patient believes, as many do, that having missed a period, the next one following should furnish a more abundant discharge. It is, therefore, very important to note whether the discharge is a regular oozing flow; or whether at the time it spurts out as if forcibly propelled along the inner surface of the thighs or along the hand and forearm of the physician during an examination. If the latter is the case, it may be taken as an unfailing symptom of abortion, as no menstrual flow is ever expelled, the discharge having that hot feeling and with sufficient force to produce the like.

Diagnosis.—In order to arrive at the correct diagnosis, it is necessary to take into consideration all the conditions; for upon these the treatment is based, and upon the treatmeut success depends. The physician will be greatly aided by having all the discharges carefully preserved, and subjecting them to a critical examination. The practical eye will soon detect any portion of the ovum which may have been detached, and be better enabled to make his diagnosis and prognosis.

It is always well to suspect miscarriages when there is pain and flooding; and if the patient has had previous miscarriages, that fact alone is significant in making up the diagnosis.

Prognosis.—When the habit has been established, it is safe to conclude that it will occur again, and it is very difficult to prevent it.

After pain and hemorrhage have set in, abortion has already commenced; and where the discharge has been abundant and the pain severe, to attempt to arrest the process by the use of astringents or styptics would be but to prolong the suffering of the patient. But even in such cases it has stopped and the pregnancy gone on to full term. If an examination show a dilation of the os and protrusion of part of the ovum, or even a clot, we will be satisfied that it will go on. If pain is present without hemorrhage, the process may be arrested by proper treatment. If there is hemorrhage without pain, the aspect is not wholly adverse, but I regard homorrhage as an adverse symptem, as it shows a more or less separation of the ovum from the walls of the uterus, thereby endangering its vitality. So long as the os is not open, and the sphincter muscles preserve their rigidity, there is yet an opportunity to prevent a miscarriage by appropriate treatment; but when once open, the use of astringents, either administered internally or applied locally, is vain, and abortion must follow.

Treatment.—It frequently occurs that the physician is not called until the symptoms have become alarming to the patient or those about her, and when he arrives he finds her in a state of great alarm. She fears she is about to bleed to death, and her whole nervous system is wrought up to a high degree of tension. To calm her fears and reduce this difficulty, I am in the habit, if there is much pain, of administering a dose of morphine. If the pain is not severe and the nervous sensibility great, I give bromide of potassium; and if both are present and equally severe, I combine the two in quantity and proportion as meets my judgment at the time. I find this course very useful as a preparation for further operations. If the os uteri is closed and a careful study of the condition affords the belief that a miscarriage can be prevented, I administer narcotics; if the stomach is sick, nux vomica, and bathe the lumbar region of

the spine and abdomen with a mixture composed of one part of chloroform and two parts ether sulphuric. The rapid evaporation of this compound from the surface of the skin makes it refrigerant in its action, and produces a sedative effect upon the parts to which it is applied. This also being grateful to the patient, aids materially in calming her nervousness and securing a condition of rest often valuable in arresting acute symptoms. When the hemorrhage is so excessive or long-continued as to cause alarm or produce a condition of syncope from exhaustion, active measures are required. If the os is sufficiently dilated to admit of the passage of the index finger as far as the second phalanx, or through the external into or through the internal os, I introduce it, preferring the right hand, and by a sweeping circular motion I either break away that portion of the placenta adhering thereto, as far as it can be reached; or if it is not possible to pass the finger any further than into the external os, I perform the same operation, thereby irritating the uterine nerves.

The conditions under which this operation would apply are not infrequent, yet they only constitute a minority. In the majority of cases the os is sufficiently expanded to separate the placenta, which can be easily removed by inserting the finger and hooking it out. In cases, however, where the os is not sufficiently dilated, the operation above referred to is far more sure and speedy in arresting hemorrhage than the use of tampona or the dilation of the os by means of sponge-tents. I have never failed in a single instance to arrest hemorrhage at once by this method, when the conditions were as above stated. The reason is plain; as soon as the uterine nerves are irritated, or that portion of the placenta adherent to the internal os is separated, the blood-vessels contract, and by the rapid formation of coagulum, a natural mechanical barrier is opposed to the further effusion of blood. If the patient is in a state of syncope the result is more speedy, as the condition is always more favorable to the coagulation of the blood and the formation of the clot. The hemorrhage arrested, I assure the patient that her bleeding is over and leave her to rest in quiet, awaiting the natural expulsion of the ovum, which may occur in a few hours, or perhaps not for days, weeks, or even months; yet it will come sooner or later, and with less suffering and danger to the patient than if removed at once by force. The placental attachments are often sufficient to maintain their vitality for some time.

I may here state, that in my practice I have never found the use of instruments necessary. I have been upon several occasions recalled, but in every case found the return of hemorrhage due to the result of failure to fully enter the external or internal os. All such cases were met by the administration of the fluid extract of ergot, or tamponed. With the detachment of the placenta there is usually an arrest of hemorrhage; even though the ovum has not been passed, the danger may be regarded as very much lessened. But the question will be asked, "What are we to do if the after-birth does not pass?" If the os is dilated and you can remove by hooking the finger over it, and with pressure over the uterine globe through the abdominal walls and the bearing efforts of the woman, it may be carefully removed. If it cannot be removed in that easy manner of procedure, wait until it passes away naturally, even though it decompose and pass off as an offensive discharge; there may be more safety than with ordinary rough usage.

This, however, is seldom the case in pregnancy of two months or less, of which I am specially treating in this paper.

After-treatment.—The first indication in the after-treatment is rest. I recommend the patient to remain in bed at least nine days in order to avoid accidents, which are liable to occur during that period. This period of time is specifically regardless of the discharge of the after-birth. If it has passed out before the expiration of the nine days, it is well; if not, it does not matter. I consider the patient at that time out of all danger from causes resulting from her premature delivery. If patients would more generally obey this direction, there would be fewer cases of diseases peculiar to women who have passed the period of maternity.

Diet.—As regards diet, I am generally disposed to be somewhat liberal. A tender piece of beef-steak or lamb chop, or soft-boiled egg, may be allowed, and will, in the majority of cases, be more advantageous than injurious. Strict regimen in diet, I believe, has a tendency to retard recovery, by withholding necessary nutriment.

Cleanliness.—In order that every possible comfort may be used as an auxiliary for the promotion of recovery, I direct that the garments and bed-linen be frequently changed, and the skin be cleansed by occasional ablution by means of the sponge-bath. By removing the secretions frequently a healthy action is engendered, and the skin made to perform its functions naturally. The bed-clothes should be light, and the temperature

of the room regulated in accordance with the comfort of the patient. Attention to the condition of the bowels is important. When a disposition to constipation is manifested, I generally administer a mild purgative. Plenty of light, fresh air, and cheerful surroundings, are valuable adjuncts in promoting rapid convalescence.

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL.

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Reported by WILLIAM H. MORRISON, M. D.

Emphysema.

GENTLEMEN: I wish to-day to call your attention to a very important series of cases which illustrates a pulmonary condition not always easily remediable, but at the same time so imperfectly understood in that which essentially constitutes it, that I am quite sure a more thorough understanding of the condition will lead to more successful results in treatment. I allude to that condition known as pulmonary emphysema, or emphysema of the lungs.

There are two applications of the term emphysema, and they have very different significations. In the first place, it is applied to what might be called an infiltration of the soft tissues, including the interstitial tissue of the lung, with air or gas. Most frequently the source of this air is a wound of the lung, as a result of which, at each inspiration, air enters the connective tissue and infiltrates it, producing on pressure a peculiar cracking sensation, readily recognized. In such cases, the emphysematous condition is found more particularly in the chest walls, but any other connective tissue of the body may become pervaded with the air, and give the peculiar crepitation to the fingers. Again, the emphysematous condition may be due to the infiltration of the tissues with gas, the result of decomposition. It is sometimes found in the neighborhood of wounds which take on an unhealthy action, and where decomposition leads to the generation of gas. This form of emphysema is, of course, more circumscribed than that due to a wound of the lung.

The form of emphysema to which I desire to call your attention is a very different condition from those which I have described. It consists primarily in a simple dilatation of the air-vesicles of the lung. The subsequent fusion of adjacent dilated air-vesicles, leads to the development of what suggest little blisters or bullæ, varying in size, over a greater or less area of the lung. They are found more particularly at the edges and apex of the lung. More commonly, this emphysema is what is known as lobular; that is, the air-vesicles going to make up a lobule have become dilated, the partitions, separating one from another, have been broken down, and a bladder is produced the size of the lobule. The condition may, however, involve a lobe, or an entire lung. This, in a few words, is a description of the affection which I propose to illustrate by these cases, which jointly, I think, will afford all the symptoms which are met with in this condition.

The history of the first patient is as follows:

"John M., aged fifty-eight years, laborer, was admitted to the hospital in September, 1883. He began to ail a year earlier, the symptoms being pain in the infra-axillary region of the right side, shortness of breath, and slight cough. During the following winter, he was obliged to stop work on account of an aggravation of his symptoms. He received no treatment, but began to improve towards spring, and was then able to walk, but not to work. Since admission into the hospital, he has complained of great weakness and shortness of breath on exertion. There has been some cough and a viscid, yellowish-white expectoration."

I wish you to note that the cough is slight, while the shortness of breath is great.

In the physical examination of the case, I shall first call attention to the facts learned by inspection. Observe, that although he is emaciated, how prominent the upper front part of the chest is, how marked both as to depth and width are the intercostal spaces, how with each act of inspiration the lower part of the chest below the nipples is drawn in, and how the intercostal spaces are seen with increased distinctness. Observe the depth of the supra-clavicular fossæ and how their depth increases as he breathes; how the scaleni and other muscles which move the upper portion of the chest walls, do a large part of the work in drawing up or attempting to draw up the clavicles. Observe that although breathing with considerable effort, how little the upper part of his chest moves as compared with that of a man in health. On the other hand, the upper abdominal region, in which the diaphragm plays, is characterized by considerable movement. Posteriorly, observe the great prominence of this portion of the chest, which in a general way may be compared to the shape of a barrel. This is, however, not so marked in this case as in another which I shall show you.

Let us continue our physical examination by percussion and auscultation. Observe the marked resonance obtained by percussing over the anterior portion of the chest. Of course, as his is a thin-walled chest, we should expect it to be more resonant than if covered by a thick layer of fat: but even independent of this, it may be said that the chest is more resonant than is normal. This hyper-resonance may be said to pervade the whole of the chest, back and front, although in some places it is more marked than in others, as for instance in the region below the left scapula, as compared with that below the right.

Before auscultating, let us reason to the signs which we should naturally expect to find in such a case. Remember, if you please, that these air vesicles are dilated, and that they are not only dilated, but that the walls separating the individual vesicles are broken down, so that a number of vesicles are thrown into one cavity. Under such circumstances, the elasticity of the walls

must be lost. A large degree of the efficiency of the act of expiration is dependent on the elasticity of the air vesicles, and in the absence of this elasticity, it is evident that the air can be but partially expelled. There is no obstacle to the entrance of air into the vesicles, nor any to its outward movement, but the *vis a tergo* is wanting.

We should, reasoning from these facts, in a typical case of emphysema, expect to have a short inspiratory sound and a prolonged expiratory sound. This is exactly the reverse of what is found in health. There the inspiratory sound produced by the bronchial and vesicular elements is long, and the expiratory sound is short. In point of fact, we do not have in emphysema these sounds exactly as I have described them, because emphysema is rarely an uncomplicated affection. It is often associated with bronchitis, and it is constantly accompanied by spasmodic contraction of the bronchial tubes or asthma. The typical sounds of emphysema are therefore usually complicated with the sounds attributable to these affections. Let us listen in this particular case, and observe the signs that are present.

On the right side below the clavicle there is a sub-crepitant, that is a small bubbling rale. It is a bubbling sound larger than a crepitant, and smaller than a mucous rale. When I again place my ear over the spot, the sound has disappeared, showing that it was due to little mucus, which has become displaced, and the rale is replaced by an inspiratory murmur, which is not much altered. The expiratory murmur is distinctly prolonged. As I carry my ear downwards over the right chest, I note the continuance of the rough, short inspiration, and the prolonged feeble expiration. In the right axillary and infra-axillary regions, the sounds are tolerably normal. Below the left clavicle there is rough inspiration and prolonged expiration. As I pass downwards, the prolonged expiratory element continues, while the inspiratory element is more natural. In the left axilla, I note the feeble prolonged expiration as the most marked feature. Posteriorly, in the supra-spinous fossa of the right side, I cannot say that the sounds are materially altered. Below the spine of the scapula, the prolonged expiration makes its appearance. Below the right scapula the sounds do not differ much from those of health. On the left side expiration and inspiration are natural above the spine of the scapula. Over the scapula I begin to hear rough inspiration and prolonged expiration. Below the angle of the left scapula the sounds are not materially altered.

Let us now turn to the second case, of which we have the following history: "Jacob S., age 34, a widower, a watch-maker by occupation, entered the hospital September 1, 1884. His family history is good. He has been a moderate drinker. Fourteen years ago he had a chancre with the usual secondary symptoms two years later. He has had pneumonia twice on the left side, the first time five years ago and the second time two years ago. He has been admitted to the hospital seven or eight times for the present trouble. This dates back to a cold which he caught five years ago. At that time he suffered with pain in the chest and shortness of breath. These symptoms have continued with a gradual increase in severity up to the present time. With this there have been frequently recurring attacks of asthma. There is more or less constant cough, which is often paroxysmal. It is accompanied with considerable expectoration, and is worse at night. The appetite is good, and the bowels are regular. For about a year a ventral hernia caused by the coughing has been present."

The difference in the history to which I wish particularly to call attention is this, that this man has had a great deal of cough, while the other man had but little cough.

Another fact in his history is interesting as bearing on the etiology of the affection. The man is by occupation a watchmaker, and for the past eighteen or twenty years he has been compelled to use the blow-pipe for fifteen or twenty minutes at a time two or three times a week. I shall refer to this again in discussing the etiology of the affection.

This case has lasted longer than the preceding one. The appearance of his chest also differs materially from that of the first man. It is well covered with fat. Notwithstanding this, if the breathing is carefully watched, sulci are observed above the clavicles, and although he is making considerable effort in breathing, the upper part of the chest moves but slightly. The mammary region is conspicuously prominent, and below the mammæ, on each side, the ribs are retracted in breathing, not markedly, but sufficiently to disclose distinctly the intercostal spaces. In the epigastrium is observed the prominence due to the ventral hernia. The strains to which the fibres of the recti muscles have been placed in the act of coughing has caused them to separate, and the abdominal viscera project each time he coughs. The "barrel" shape of the thorax is here more easily recognized than in the previous case. Note the greater prominence of the right side posteriorly as compared with the left. There is a protrusion of the region below the right scapula. It might at first sight be thought that this is due to unequal development of muscle, but a little examination shows that the ribs are immediately under it, and there is therefore no doubt that there is protrusion of the ribs at this point. We should expect theoretically to have increased percussion resonance over this bulging portion, and such proves to be the case, showing that the right lobe of the lung is more emphysematous than the left lobe. Percussion gives a general hyper-resonance which is however most marked below the right scapula. But the typical auscultation signs of emphysema just described are overshadowed by the sonorous and sibilant rales which, caused by the asthma, complicate the emphysema.

I present you a third patient, whose history is as follows:

"Jacob R., aged fifty-nine, unmarried, a farmer by occupation, and later a hostler, was admitted to the hospital ten years ago. The present affection dates back twenty years, at which time he caught cold from going in and out of an ice-house. He has had a troublesome cough, with considerable expectoration, and shortness of breath ever since. He was, however, able to work up to two years ago. Of late years, he has also had frequent attacks of asthma."

Inspection again reveals depressions above the clavicles, and there is a prominence of the entire præcordia. All that region occupied by the sternum in front, and the cartilages, as far as their junction with the bony ribs, is unusually distinct. Observe, also, the slight degree of movement of the chest, although the breathing is labored. We note, also, the exaggerated movement of the upper abdominal wall and the increase in width of the intercostal spaces during the act of inspiration, although this is by no means as marked as in the first case. Posteriorly can be distinctly seen the "barrel" shape, much more marked than in either of the other two.

I also call attention to the displacement of the heart. The situation of the apex beat, instead of being an inch below and within the nipple, is fully two inches below it, and the area of cardiac dullness is much diminished. This is a striking symptom of emphysema, and in this particular case, is very conspicuous.

Both the displacement of the heart and the diminished area of cardiac dullness are both due to the enlargement of the lungs, the heart being pushed downward by the enlargement in the vertical direction, and covered by the extension of the edges of the lungs anteriorly. For the same reason the liver is also pushed downward.

In addition to the facts already mentioned in connection with these cases there is a most marked change in the antero-posterior diameters of the chest, which can be best appreciated by a lateral examination. In case 2 the antero-posterior diameter is fully as great as the transverse.

As to the *diagnosis* of emphysema, the conditions with which it is most likely to be confounded are pleurisy and pneumothorax, but there should be no difficulty in the diagnosis. As you well know, there is in pleurisy also a bulging of the chest, but in the bulging of pleurisy, although there may be tympanitic resonance above the level of the effusion, yet over the most prominent portion of the chest, there is dullness or flatness on percussion, and the intercostal spaces are prominent rather than depressed. There is in pleurisy the same shortness of breathing and the same effort at breathing. The physical signs are however so different that there should be no trouble in the diagnosis.

In pneumothorax there is a closer simulation of the physical signs of emphysema. There is also bulging of the chest, which is, however, usually more marked on one side than on the other, but as it is rather rare to have a uniform, symmetrical emphysema, we may have here also a greater prominence of one side than of the other. It is said that the parts of the lung most likely to be affected with emphysema are the upper part of the right lung and the lower part of the left. So in the matter of percussion, both emphysema and pneumothorax give hyper-resonance. Pneumothorax, however, gives more marked tympany than emphysema. It has always seemed to me that the books rather exaggerate the clearness of resonance found in emphysema. The hyper-resonance, although marked, is not always so striking as we are lead to believe. In the hyper-resonance of pneumothorax there is a real tympany, comparable to that obtained over the distended abdomen. In pneumothorax there is very frequently metallic tinkling, caused by the dropping of fluid from the perforation in the lung into the pleural sac. In the lower portion of a chest with pneumothorax there is always effusion, which gives dullness on percussion, and a line of separation between the tympany and flatness is demonstrable. Pneumothorax is sudden in its occurrence, whereas emphysema developes gradually. It is, however, not impossible for the two affections to be combined.

There is still another condition with which emphysema might be confounded, but this is so rare that unless one's attention were drawn to it from his personal experience, he would not be likely to think of it. The condition to which I refer is diaphragmatic hernia. This is an uncommon condition, but when it does occur it gives rise to tympanitic resonance in the chest. To my mind the possibility of this condition is always present, because of personal experience.

I had under my observation for a long time a very singular case, in which there had been a rather sudden development of symptoms. The condition came on suddenly while engaged in a scrimmage or wrestle. He was seized with a sudden sharp pain in his left side, and a day or two later he began to have a peculiar puffing respiration. With this there was extraordinary clearness on percussion over the region of the left lung. He was examined repeatedly by myself and others, but no one thought of the true cause. None suspected diaphragmatic hernia. The autopsy showed that almost one-half of the abdominal viscera were in the left pleural cavity, and that the lung was pushed into the upper portion of the chest, occupying a space about the size of the fist. This man presented the bulging, the shortness of breath, and the hyper-resonance peculiar to emphysema. Having once met such a case, one is apt to be on the look-out for it again. I therefore mention in passing that diaphragmatic hernia may produce physical signs simulating those of emphysema.

We next come to the *etiology* of emphysema. By far the larger number of cases of emphysema are the result of chronic bronchitis. This bronchitis, which may have for its consequence emphysema of the lungs, may begin in childhood; it may begin as whooping-cough, from which the child has not completely recovered, or succeeding which it has been subject to constantly recurring attacks of bronchitis. It may occur later in life, as the result of exposure to cold and recurring attacks of bronchitis. It is scarcely likely if the lung preserved the proper integrity of its tissue, that even under the forced strain of coughing it would undergo the dilatation and destruction which occurs in emphysema. Sooner or later, with chronic bronchitis, there is a change in the integrity of the tissues of the air-vesicles, which makes them more yielding and more likely to give way under strain. It has been stated the blowing on wind instruments is a cause of emphysema, but this is by no means a settled fact. It is not impossible in a case where there was chronic persistent bronchitis, with the alterations of structure which occur in this disease, that blowing on wind instruments might produce emphysema. That this is of itself sufficient is hardly likely. It will be remembered that one of

our patients is a jeweller, and has worked a good deal with the blow-pipe, using it several times a week, and keeping it up for a length of time. The effect of this would be similar to that of blowing on wind instruments. The prolonged, full inspiration, and the long, forced expiration, would naturally tend to produce dilatation of the vesicles. That it is of itself sufficient to produce this dilatation has not been established, but as I have said, it is not impossible that in connection with chronic bronchitis, and the changes in texture which occur in this affection, it may assist in the production of emphysema.

Again, it is hardly likely if all parts of the lung are equally free to the entrance of air, that the forcible inspiration and expiration which constitute coughing would produce the over-dilatation of the vesicular structure. We are in the habit of saying that emphysema results from inspiratory and expiratory strain. I am inclined to believe that strain of the lung occurs more commonly in the act of expiration than in inspiration. As a result of the chronic bronchitis, certain tubules become plugged with mucus, which acts as a valve, permitting the entrance of air, but not allowing of its exit. Finally the vesicles become filled with air, which cannot be passed out. In the act of expiration, the lung is compressed, and the air is forced back into all the little corners; the air cannot get out, while at the same time the lung is being squeezed; it is forced in the direction of least resistance towards the air vesicles, and dilatation takes place in the apices and edges of the lungs. This is probably the way in which expiratory strain acts in producing dilatation.

Over-distension may also result from forced inspiration. As the result of the chronic inflammation of the bronchial mucous membrane, certain parts become plugged with mucus, but the valvular action is in the opposite direction, permitting the air to get out, but preventing it from getting into the vesicles. A certain amount of air enters the lung with each inspiraiion, but if a portion of the lung is cut off, the air must go elsewhere, and the remainder becomes the seat of what may be termed collateral aeration. This produces an undue distension of the air vesicles, and they yield to the dilating force. It is evident, however, that the dilating force thus exerted cannot equal that in expiratory strain, and I say again, therefore, that expiratory strain acts more potently than inspiratory strain in producing emphysema.

As a result of the over-distension of the air-vesicles, there is first dilatation, then the walls of the vesiele atrophy, and with the atrophy of the walls the blood vessels surrounding them are destroyed. Although under these circumstances the lung occupies more space, its blood aerating power is diminished. The circulation is cut down to the larger trunks, and the blood, as it were, takes a short cut from the pulmonary arteries to the pulmonary veins. The aeration of the blood is thus rendered difficult or impossible, accounting thus in part for the dyspnœa.

This symptom of shortness of breath is also partly due to the fact that the air the vesicles does not change. One of the most important results of emphysema is the loss of elasticity in the walls of the air vesicles. The intercostal muscles, the diaphragm and auxiliary muscles of respiration, enlarge the thoracic box, and the lungs expand to fill it by their own resiliency, producing the act of inspiration, while the air is expelled in expiration partly by the recoil of the elastic tissue and partly by the pressure of the contracting thorax. This natural resiliency is absent in cases of emphysema. The lung is always filled with air, but it is air charged with carbonic acid, and does not change. As a consequence, the patient makes increased efforts to draw the air into the lungs, but as the air vesicles are already filled with air these efforts are ineffectual.

As to treatment, it is impossible, so far as we know, to restore destroyed lung texture. If a number of air-vesicles have been converted into one sac or bladder-like cavity, I believe that there are no means by which these vesicles can be restored. At the same time, where we have youth on our side, there is some, if the structural loss is not too great; its functions may be supplemented through the natural recuperative tenderness of the economy. Our efforts must be directed mainly to averting those conditions which complicate and increase the emphysema. As I have said, chronic bronchitis is its most frequent cause, and, therefore, we must try to relieve this condition by every means in our power. At the same time, the general health is apt to be impaired, and it is as important that this should be restored as that the bronchitis should be relieved. The blood is to be restored to a proper composition by tonic remedies like cod-liver oil and iron, and the use of the very best food that the patient can procure. To the cod-liver oil and iron I always add strychnia in full doses, $\frac{1}{30}$ to $\frac{1}{24}$ of a grain, while arsenic, believed by some to have a special action on the tissue, is certainly an admirable tonic in the shape of Fowler's solution, five drops at a dose for an adult, or of arsenious acid, $\frac{1}{30}$ of a grain.

The bronchitis is treated by the usual remedies; but at the same time it is of such importance that the stomach should be kept in good condition, and that digestion should not be interfered with, that more than ordinary care is required in the selection of remedies for the bronchitis. A very useful measure in these cases is counter-irritation, which in no way interferes with digestion. Mustard plasters afford in such cases a convenient method of counter-irritation. A mustard plaster can be so prepared that it may be worn continuously without discomfort. The plaster is to be prepared by mixing the mustard and flour, say 1 to 5, with one of equal parts of white of egg and glycerine, instead of with water.

I have mentioned strychnia as a tonic, but it may also be regarded as an expectorant, and I have known secretions in the lungs to be rapidly disposed of by its use. It has also the effect of improving the nutrition of the muscular tissue of the walls of the bronchi, as it has of improving the muscular tissue in its entirety. Full doses should be given. I usually give it in doses of from the thirty-second to the twentieth of a grain, repeated three times a day. This is to be kept up for a long time.

The ammonium carbonate and the ammonium chloride are also useful expectorants where there are abundant secretions. The former is more prompt in its action, and when given alone in-

stead or in combination with syrups, especially senega, is no more apt to derange the stomach than the muriate. It may be given in from 5 to 10 grain doses every three hours, or oftener, if necessary.

The other expectorants, syrup of squill, syrup of senega, and syrup of ipecac, I am slow to use, unless there is some urgent reason for securing a prompt effect. Anything that is relaxing or tends to derange the stomach should not be used. If there is asthma, the relaxing effect of these remedies may be required.

The palliative treatment constitutes an important part of the treatment of these cases. This will, of course, depend to a large extent on the nature of the complication. I have already stated that asthma, *i. e.*, a spasmodic contraction of the bronchial tubules, is one of the most serious and frequent complications of emphysema. While there are certain physical signs significant of emphysema, which consist in feeble inspiratory murmur and prolonged feeble expiratory sound, these are in the majority of cases overshadowed by those of the complication which is present, bronchitis or asthma. You will recollect that in ausculating the chest of one of the patients, we found numerous sonorous and sibillant rales. They can be produced only when there is an abnormal relation between the air entering the lungs and the calibre of the tubules through which it passes. This may be caused in two ways—one by a thickening of the mucous membrane of the tube from inflammation, the other by a narrowing of its calibre from spasmodic contraction. In the present case it is hardly correct to speak of this complication as asthma. This man, however, has attacks in which he is much worse than at present, and has greater difficulty in breathing. These temporary attacks of asthma of course require treatment. I know of no more efficient way of breaking up an attack of asthma, than the hypodermic injection of $\frac{1}{4}$ of a grain of morphia with the $\frac{1}{120}$ of a grain of atropia. This will usually relieve the paroxysm almost immediately. If relief is not complete, the injection may be repeated every six hours. It is under these circumstances that the various inhalations are employed. The smoke of burning stramonium or tobacco, ether, chloroform, and a large number of other remedies which have the effect of relaxing the spasm, have been used in this way. Of course, in connection with the attacks of asthma, the other remedies of service in relaxing the bronchial tubes, such as belladonna and iodide of potassium, are given. Tincture of belladonna, in doses of ten or fifteen drops, combined with ten grains of iodide of potassium, will often break up so much of this condition as is due to spasmodic contraction of the tubules.

To relieve the constant dyspnœa, a treatment was suggested some years ago by Waldenburg, the usefulness of which is much limited by its unavailability. This is the introduction into the lungs of compressed air and the breathing out into rarified air. It is plain that if compressed air can be introduced into the vesicles that the aeration of the blood will be more perfect, and that if the patient breathe into rarified air, the residual air which it is so difficult to get rid of will be sucked out. This requires a special apparatus, known as Waldenburg's apparatus. We have become acquainted with the effect of breathing compressed air from the experience of persons in diving-bells. It slows the pulse and increases the force of the heart's beat, and it slows the respirations while it increases their efficiency. Under these circumstances the blood is more thoroughly aerated, and the embarrassment of respiration is diminished. Breathing into rarified air more completely empties the lungs, the blood rushes in more thoroughly, and is better aerated. Sometimes these patients are benefited by going to high altitudes, while at other times the condition is aggravated. The symptoms in all cases are aggravated at first, but in those which are benefited the increased dyspnœa is gradually diminished. Where relief ensues, it may be ascribed to a more complete emptying of the air vesicles.

If such measures can be employed and the patient kept from having fresh attacks of the affections which have caused the emphysema, he can be kept in comparative comfort; but if he is necessarily exposed to bad weather and subjected to frequent attacks of bronchitis, there is not much relief to be afforded. It is for this reason that these patients always get better when they come into a hospital, where they are housed, receive good food, and are protected from exposure. They improve and leave the institution, but returning to their old habits, again catch cold and come back to the hospital. One of these patients has been discharged and readmitted some seven or eight times.

Medical Societies.

CHICAGO GYNECOLOGICAL SOCIETY.

Regular meeting, December 19, 1884. The President, Dr. H. P. Merriman, in the chair.

Dr. W. H. Byford read a paper entitled

A Case of Mural Pregnancy.

The history of the case was obscure. The patient, twenty-eight years old, married seven years, had one child, six years old. She supposed she became pregnant, for the second time, in February, 1883. In April, she became fatigued and had hemorrhages, which continued until May 9—about four weeks.

October 14, a discharge of yellow fluid, about one gallon in quantity, occurred. A putrescent, sero-sanguineous discharge followed, continuing three months.

January, 1884, a large brownish mass, with very fœtid odor, was expelled. After this event menstruation occurred until July.

In May, she was quite large, and had bearing-down pains. She entered the hospital October 6, 1884. She was tapped October 18, and about four quarts of thick, tenacious fluid, resembling the fluid of an ovarian cyst, were removed. This fluid coagulated on the addition of nitric acid and on boiling. Assisted by Dr. R. Tilley, a microscopical examination was made, with negative results. The "Drysdale" cell was not found. Laparotomy was performed, and a fœtus with pla-

centa was removed without hemorrhage or difficulty. In order to secure perfect drainage, it was considered best to remove the uterus. The operation was performed on October 30. The patient did not react, but died within twenty-four hours. Prior to the operation, the patient was extremely reduced by her protracted sufferings. Dr. Byford, in a similar case, at the present time, would elect the vaginal operation. The specimens removed from the woman were exhibited as supporting the diagnosis of mural pregnancy.

This was the second case of mural pregnancy that had come under the reader's observation within a period of five years. The first case was reported to the Chicago Gynecological Society some time ago. The patient was in labor and moribund when Dr. Byford saw her. She had been in labor until exhausted. There was no difficulty in making a diagnosis. The head was low down in the pelvis, almost on the perineum. The *os uteri* was well nigh inaccessible behind and above the symphysis. The body of the uterus, somewhat enlarged, could be felt in the lower and anterior part of the abdomen, attached to the tumor containing the fœtus. The fœtus could be felt through the abdominal walls, surrounded by a thick involucrum, apparently as thick as the uterine walls. Fœtal extremities could be distinguished. When dissected, the sac, in which the fœtus was contained, was found to consist of a thick layer of muscular fibres. These fibres were directly continuous with those of the uterus. The tubes and ovaries lay on either side of the lower portion of the sac. The fecundated ovum had made its way down the tube, become lodged in a diverticulum in the uterine wall, and was gradually extended into the cavity of the abdomen. The fœtus was thus developed within the uterus, though not within the uterine cavity. The resemblance to normal pregnancy is great in the presentation and position of the fœtus, deep down in the pelvic cavity, behind the vagina. The head, in this case, was fixed by the concentric contraction of the uterine fibres, by which it was surrounded, and could be easily outlined as it lay there covered by the posterior vaginal wall.

The specimen presented is much less perfect than the one described, because of the numerous effects wrought upon it during the great length of time it remained in the maternal body, and the mutilation consequent upon enucleation.

The treatment of these cases ought to be considered apart from that of extra-uterine pregnancy at term. It is always a matter for special consideration in connection with each case as it presents itself, whether or no the removal of the fœtus at term in extra-uterine gestation should be attempted. The dangers of laparotomy are greatly increased by the inability to remove the placenta. The surface to which it is attached has no contractile power, so that the divided vessels are left patulous. If hemorrhage does not immediately prove fatal, the blood is a source of sepsis that must almost certainly destroy the patient. Laparotomy would more likely prove successful if performed some days after the death of the child. In these cases of ectopic or interstitial uterine pregnancy, the fœtus may be easily removed through the vagina. An incision made through the posterior vaginal wall would completely uncover the presenting part and enable one to apply the forceps, or attack it with the perforator and crotchet, as in ordinary labor. After the removal of the fœtus the placenta should be allowed to separate spontaneously.

Since writing this report, Dr. Byford has seen a case, reported in the *Annales de Gynecologie*, July, 1884, occurring in the practice of Dr. Matheson, of England, illustrative of the execution of this plan. The case was reported to the London Obstetrical Society, under the title, "Extra-uterine Pregnancy, the Extraction of a Living Fœtus through the Vagina." The child was slightly asphyxiated, but survived. A sponge, saturated with perchloride or iron, was introduced into the sac after removal of the placenta. The mother recovered. It would seem that the author did not expect his case to be one of interstitial pregnancy. During the discussion that followed only one of those present expressed the opinion that it was of that variety. Mr. Griffith thought it was either interstitial pregnancy or one in which the fœtus was developed in one portion of a double uterus.

DISCUSSION.

Dr. Edward Warren Sawyer thought that interstitial pregnancy meant the development of the ovum in the uterine portion of one of the tubes. In Dr. Byford's case the uterine portion of the tubes was not involved. It reminded him of a case he had seen near Denver. In this case, a secondary uterus, with muscular walls, had been developed, but as the tubes were not involved, he did not feel justified in designating the case one of interstitial pregnancy.

Dr. D. T. Nelson said with reference to the treatment of the placenta, that Dr. Byford's advice was that usually recommended in the text books. The placenta should be left alone in those cases in which the walls of the secondary uterus were not muscular. He had seen a case in the museum of the Chicago Medical College in which no muscular fibre could be detected in the walls. When the walls of the adventitious uterus were muscular it was questionable whether or no the placenta should be left alone. If the placenta is removed, there is danger of hemorrhage; if the placenta remains, there is danger of sepsis. While there was reason to suppose that contractions of the adventitious uterus would check hemorrhage, he thought the placenta should be removed. He had had no experience in these cases.

Dr. E. C. Dudley replied to Dr. Nelson. Women, in cases of extra-uterine pregnancy, in which the placenta has been allowed to remain, do not die of sepsis. He had seen two or three cases in which the sac had been united to the abdominal incision. Whenever evidence of sepsis occurred, the sac was washed out, and the temperature immediately fell to the normal. The placenta under these circumstances is spontaneously eliminated in about three weeks.

It requires phenomenal powers of diagnosis to tell in the concrete case whether or no the sac had sufficient muscular fibres to prevent hemorrhage. The placenta should be permitted to remain within the sac.

Dr. J. H. Etheridge thought that if, on microscopical examination, it was found that the mus-

cular fibres of the normal uterus were continuous with those of the adventitious uterus, the case was one of mural pregnancy. In cases of abdominal pregnancy, there was a line of demarcation between the normal and adventitious uterus.

Dr. A. Reeves Jackson thought the members of the society were greatly indebted to Professor Byford for the presentation of such an interesting specimen. He thought, however, with Dr. Sawyer, that the results of the anatomical investigation did not support the author's diagnosis. The uterine portions of the tubes were not involved. So valuable a specimen deserved very close microscopical and macroscopical examination. It ought to be referred to a competent pathological anatomist.

Dr. John Bartlett thought the ovum had not passed through the tube, but had been developed in the broad ligament beneath the peritoneum, and had, in this manner, derived muscular fibres from the uterus.

Dr. W. W. Jaggard referred to the fact that next to ovarian pregnancy, interstitial pregnancy was of most infrequent occurrence. Up to the present time about thirty cases in regard to which the diagnosis was positive have been reported. Interstitial or mural pregnancy included other sites of development than the uterine portions of the tubes. Dr. Gilbert's case, reported in the *Boston Medical and Surgical Journal*, March 3, 1877, and alluded to by Professor Lusk in his treatise on midwifery, was a case in point. The ovum in this case was developed in what seemed to be a bifurcation of the fallopian tube. In Dr. Byford's case, the tubo-uterine orifices were not involved. The sac was extrinsic to the uterine walls. It was probably a case of abdominal pregnancy in which the ovum became attached to the posterior uterine wall, and derived muscular fibres from its loeality. The fact that a continuity of muscular fibres from the normal uterus to the adventitious uterus might be ascertained upon microscopical examination, would prove nothing as to the nature of the pregnancy. Dr. Byford's case resembled that of Jauverin, in which the ovum lodged on the posterior uterine wall, and developed in this situation, involving the posterior wall in its sac. The specimen was worthy of more exact investigation, and should be placed in the hands of a competent pathological anatomist.

Dr. Sawyer said that abdominal pregnancy, with location of ovum on posterior uterine wall, was not at all improbable. He then referred to Bischoff's and Leopold's observations and experiments with relation to the "external wandering over of the egg." Beigel had ridiculed this idea. It was like a blind man introduced into a large, empty room, with a thread in his hand, seeking to find and thread the eye of a needle located in some indefinite quarter of the room. Notwithstanding the sarcasm, the fact of the external wandering over of the egg was a matter of positive knowledge. The egg may pass from one ovary to the opposite fallopian tube through the abdominal cavity. He thought the specimen exhibited was one of abdominal pregnancy.

Dr. Dudley thought the fact of the external wandering over of the egg was not disputed at the present time. Playfair in his treatise on midwifery gave a clear exposition of the subject.

Dr. Charles Warrington Earle said that the fact of external wandering over of the egg was fully recognized twelve years ago.

Dr. Sawyer said the ovum in abdominal pregnancy might be attached to the posterior wall of the uterus, the mesentery, under surface of the liver, or to other viscera.

Dr. Nelson made the remark that in both of the cases cited by Dr. Byford, *deciduæ* had been cast off by the *uterus*.

Dr. Jackson said that Fränkel was of the opinion that the formation and extension of a *decidua* was a constant occurrence in extra-uterine pregnancy. It was pathognomonic of the condition.

Dr. W. H. Byford was not surprised that certain members did not agree with him in his diagnosis. He thought that in the first case the fecundated ovum passed through the tube, but had found some diverticulum in the uterine cavity, and had passed into the posterior wall, and developed in this region, pushing the wall before it. Some of the reasons for this position were as follows:

The muscular elements of the sac were directly continuous with the uterine muscle. He did not believe that such a muscular sac could develop adventitiously in the abdominal cavity. He had seen cases of abdominal pregnancy, with no muscular fibres in the sac. The head presentation, down deep in the pelvic cavity, in the direction of the resultant of the forces developed by uterine contractions, supported his view of the case.

It is not necessary for the production of mural pregnancy that the tubes be involved. He thought there was much in the remarks of Dr. Nelson and Dr. Dudley. In cases in which there was sufficient contractility, it was best to remove the placenta. Even under these circumstances, it was not absolutely necessary. There was no danger in allowing the placenta to remain.

Finally, he was very positively of the belief that the two cases referred to in his paper were examples of mural pregnancy. The peritoneum was a boundary line between mural and abdominal or peritoneal pregnancies.

Dr. Sawyer asked the question, "Is the peritoneum a boundary line of importance in the macroscopical or microscopical differential diagnosis between abdominal and mural pregnancies?"

Dr. Jaggard, in reply, said that the peritoneum was no barrier. What was the peritoneum? Dr. Etheridge, in an article on "Chronic Adhesive Perimetritis," published in a recent number of the *Chicago Medical Journal and Examiner*, had ably sketched the anatomy of this membrane. It was developed out of connective tissue, according to Rindfleisch and other distinguished anatomists. It offered absolutely no barrier to the attachment of the ovum to the posterior uterine wall, and its development in this situation, with the derivation of muscular elements from the normal uterus.

On motion, Drs. Byford, Merriman, and Jaggard were appointed a committee to select a competent pathological anatomist, who did not belong to the Society, to examine the specimen and report at the next regular meeting. It was specified in the resolution that the *pathologist should be amply paid for the labor.*

Dr. Etheridge then exhibited a placenta with calcareous deposits. The placenta was removed from the body of a woman, pregnant for the first time, who had probably carried the fœtus 292 days. The calcareous deposit was probably the result of fatty metamorphosis of the upper layers of the *decidua serofina*.

Dr. Sawyer said the placenta was interesting, but not uncommon. It has been erroneously believed that such *placentæ* are of syphilitic origin. He thought the connection with prolonged gestation was established.

Dr. Dudley referred to the calcareous deposit in the wall of the arteries supplying an ovarian cyst, which he had removed some years previously.

Dr. Jackson related the history of a case in which he had removed a mass of calcium carbonate situated in the recto-vaginal septum, one and one-half inches from the vulvo-vaginal orifice. There was no fatty metamorphosis in this case.

Dr. Earle thought there was an unreasonable tendency to ascribe such cases to the effects of syphilis. Hydatidiform degeneration of the chorionic villi and *hydrops amnii* received a similar erroneous etiology.

Dr. Etheridge said that the deposits were composed of phosphate and carbonate of calcium. These salts had an affinity for albumens, and fatty acids present in the cotyledons. Similar calcareous deposits were met with in fibroids, thrombi, encysted trichinæ, and in the lithopædia of extra-uterine pregnancy.

Dr. W. H. Byford thought the connection between prolonged gestation and calcareous deposits in the placenta was established. He thought that Dr. Etheridge would find on microscopical examination that the changes had occurred exclusively within the vessel walls.

The Society then adjourned, to meet on the third Friday evening in January at the residence of Dr. E. C. Dudley, No. 2317 Indiana avenue, at eight o'clock.

The business of the next meeting will consist of:

1. Report of pathologist, Dr. Christian Feager, on Dr. Byford's specimen.
2. Exhibition of specimens from a double ovariotomy, by Dr. E. C. Dudley.
3. Discussion of certain methods by which the second stage of labor may be rendered easy, by Dr. Henry F. Byford.

W. W. Jaggard, M. D., *Editor.*

2330 *Indiana Avenue, December* 22, 1884.

Editorial Department.

Periscope.

Hydrochlorate of Cocaine in the Nose and Throat.

Dr. E. Fletcher Ingals thus writes in the *Jour. Am. Med. Ass.*, November 22, 1884:

After having noticed the statement by M. Du Cazal, that tincture of coca would relieve painful affections of the throat, I made several trials of the remedy, but failed to get satisfactory results: and since the publicaiion of Dr. Agnew's report on the hydrochlorate ot cocaine, being unabe to obtain any of the latter, I have made trials of a strong solution of the extract of coca, and also of citrate of caffeine, which, from its close resemblance to cocaine, I hoped might produce similar local effects; but in both I was completely disappointed.

I was unable to obtain any of the hydrochlorate of cocaine until the 13th of this month, when I received a 2 per cent. solution from New York. My first trial was in a healthy subject, who, however, had a very sensitive Schneiderian mucous membrane. I ascertained by experiment that, with the moderate pressure applied, only about 10 per cent. of a spray applied to the nostrils would be lost. I then applied the solution in the left nasal cavity, first by a spray, and afterward by a hypodermic syringe fitted with a long probe-like nozzle. I applied in this case 26 minims of the solution during the space of forty-five minutes, from two to four minims being applied at intervals of three to six minutes, with the following result: Fourteen minutes after the first application there was a decided loss of sensibility, though pressure caused pain. In thirty minutes anæsthesia was nearly perfect, 18 minims having been used, and in forty minutes sensitiveness was returning. In forty-five minutes the membrane was quite sensitive, and in fifty minutes sensibility was almost normal, notwithstanding the continuous use of the cocaine. The soreness caused by the probing caused considerable pain, which radiated to the eyes and side of the head, and lasted for three or four hours.

Case 2. Male, aged 19. Naso-pharyngeal fibroma. In this case a portion of the fibrous growth, which was attached to the side of the posterior border of the septum, had to be cauterized.

Two previous cauterizations had given the patient very severe pain, which "shot through his whole head." The nasal cavity was first washed out with Dobell's solution, and afterward with a weak solution of hydrochloric acid. It was then dried by absorbent cotton, and the two per cent. solution was applied with the syringe to the part to be cauterized.

I used thirty minims during thirty-six minutes, in quantities of four to five minims every five minutes, with the following results: In seven minutes sensitiveness was considerably diminished. In fourteen minutes sensitiveness greater than before. Thirty-six minutes after the first application, half a drachm of the two per cent. solution having been applied, he could feel the probe, but it caused no pain excepting in one spot. I then applied the cautery thoroughly about three times as long as on previous sittings, causing very little pain—he thought about one-tenth as much as formerly.

Case 3. Male, aged 62. At two previous sittings I had removed from this gentleman's nares large mucous polypi, but to-day I found the base of one springing from the middle meatus of the right side. I dried the parts with cotton, and during ten minutes applied ten minims of a two per cent. solution as thoroughly as possible immediately about the polypus. Nineteen minutes after the first application, I removed the polypus with snare and forceps, and then cauterized its base with the galvano-cautery. He said the pain was very slight, not more than one-tenth what he had experienced from previous operations of the same character. He was exceedingly pleased at the result.

Case 4. Male, aged 34. Nasal polypi, with exceedingly sensitive Schneiderian mucous membrane. Applied first five minims of a two per cent. solution, five minutes later four minims more. Six minutes later parts not sensitive to probe. Cauterized base of polypus in middle meatus with galvano-cautery, with about one-fifteenth the pain he had experienced from a similar operation a week previously.

Case 5. Male, aged 29. Hypertrophic catarrh. This patient came from Iowa, and as he wished to return the same evening, I desired to relieve him as completely as possible at one sitting. To the left naris, which was very sensitive when touched with the probe, the two per cent. solution was applied as in the preceding experiments, in quantities of one to four minims at intervals of one to four minutes, with the following results: There was some numbness at the end of seven minutes, and very little sensitiveness at the end of eleven minutes, but eight minutes later, notwithstanding the continual use of the drug, the sensitiveness was about the same. I then transfixed the lower turbinated body, and applied the snare without pain, though he felt it; but when the snare was tightened, considerable pain was experienced. Three minutes later the sensitiveness of the part was about one-third that of the side not treated.

While doing this operation I received word that the cocaine ordered from Germany had arrived. I immediately sent for it, and had a four per cent. solution made.

Second trial in case 5. An hour and a half later I applied the four per cent. solution to the right naris. The cavity was first dried with cotton and twelve minims applied in quantities of one to two minims at intervals of two or three minutes during twenty-three minutes, at the end of which time he said the sensitiveness was more than at first, though it had been much obtunded ten minutes earlier. I then swabbed out the naris carefully and applied four minims more of the solution. Five minutes later I cauterized the inferior turbinated body thoroughly, causing about one-fourth the amount of pain ordinarily experienced from similar though much shorter operations.

Case 6. Female, aged 33. Anosmia dependent partially on submucous thickening of the upper part of the septum, which was swollen so as to protrude three-sixteenths of an inch. I first dried the mucous membrane with a jet of compressed air and then applied the four per cent. solution by means of the syringe, dropping upon the surface half a minim every half minute for three minutes, and afterward every three minutes until ten minutes had elapsed, when I found anæsthesia of the part complete. I then cauterized the swollen tissue thoroughly, passing the hot wire twice through its base without causing the slightest pain. A similar operation in the opposite naris had previously given this patient severe pain.

Case 7. Male, aged 21. Deflection of the septum with exostosis forming a spur one and three-fourths inches long, projecting a fourth of an inch from the normal plane of the septum and decreasing the normal calibre of the air-passage eighty per cent. The nasal mucous membrane was unusually sensitive. I applied a loose pledget of absorbent cotton below the spur, and having dried the membrane with the jet of air, repeatedly dropped upon the upper surface of the spur, from one end to the other, a four per cent. solution; averaging half a minim every half minute for the first six minutes. Some of this ran down into the cotton below the spur, but at the end of several minutes from the first application, when the upper surface was completely benumbed, I found the lower still acutely sensitive. I then removed the cotton and dried the passage with the air jet and applied more of the solution in the same manner as before, both above and below the spur. Twelve minutes after the first application, having used eight minims of the solution, I found the parts to be operated upon completely anæsthetized. I then sawed off the spur (this part of the operation requiring about four minutes), without causing the slightest pain. In removing the detached bone, some pain was caused by touching the outer wall of the naris, which I had not attempted to anæsthetize. Twenty minutes after the first application, sensibility was rapidly returning, and five minutes later the parts were again sensitive to the probe.

Case 8. Mrs. W. Small cystic tumor at the lower part of the left side of the base of the tongue, about half an inch below the tonsil, with several diseased follicles in the tonsil filled with their desiccated secretions. I wished to destroy part of these with the galvano-cautery. But the patient so feared pain that I attempted to benumb the parts by injecting on the upper part of the tonsil the four per cent. solution, which trickled down so that I supposed the membrane over the cyst would be reached. Five minims were used in the course of five minutes, the mouth being kept open. Three minutes later the patient complained of something being lodged in her throat which made her retch and nearly caused vomiting; this sensation, which was due to the benumbing effects of the cocaine, lasted about five minutes. As soon as the tendency to retch ceased, I destroyed the cyst with the galvano-cautery, but the anæsthetic effect of the cocaine seemed to have entirely disappeared.

Case 9. Male, aged 31. Hypertrophic catarrh. Dried the parts with the blast of air, and then applied the four per cent. solution of hydrochlorate of cocaine to the inferior turbinated body of the right side, eleven minims in thirteen minutes, from one-half to one minim every minute.

In this case, as in others of hypertrophic catarrh, the solution caused the swelling to almost completely disappear by the time the anæsthesia was complete.

The turbinated body was cauterized thoroughly without pain. The patient complained of a sense of dizziness and slight dyspnœa for ten minutes, but had no unpleasant sensations afterward,

Case 10. A little girl, aged 6. Adhesion of turbinated body to septum, causing stenosis of right naris.

Applied the solution as in the last case, excepting that half of it was used with the atomizer and only eight minims were employed.

In fourteen minutes anæsthesia was complete, and the adhesions were broken down without pain.

Second application in case 2. On the patient's next visit to my office, I applied the four per cent. solution to the naso-pharynx, which still contained quite a large mass of the fibrous growth. He has always complained bitterly on any manipulation of the part; but after having used ten minims by the atomizer, a minim every minute, the surface was anæsthetized; however, by the probe I found that deeper parts were still sensitive.

I then introduced, by means of the probe-pointed syringe nozzle, six minims more in various places where the contact of the probe caused pain. In twenty-five minutes the parts were so thoroughly anæsthetized that I commenced the operation of removing the mass with cutting forceps. The operation lasted about ten minutes, and gave no pain excepting in one small spot, though he said he felt the instrument whenever introduced or moved.

From my experience with cases one to five inclusive, I concluded when the solution is applied in the naris every four or five minutes a partial anæsthesia occurs in ten or fifteen minutes after the first application, and that it is followed, like the first effects of ether when given slowly, by a period of two or three minutes of exalted sensibility, and that if its use be continued (possibly without further use) the maximum effects of the anæsthetic are quickly reached. The anæsthesia disappears in about five or ten minutes. These cases also suggest the query, whether, after a short time (thirty to forty-five minutes) it might not be very difficult to maintain anæsthesia even by repeated applications? These same cases also convinced me that a two per cent. solution is not ordinarily strong enough for use in the nose. From all the experiments, I conclude also that the drug does not act satisfactorily unless the mucous membrane is free from secretions; and wiping out the nasal cavity with cotton, though it dries it for a few seconds, excites excessive secretion directly afterward, therefore drying may be much better accomplished by the jet of air.

These cases, as far as they go, also suggest the advisability of overcoming the sensitiveness as quickly as possible by frequent applications, which keep the surface constantly bathed in the solution. When used in the fauces, it was entirely unsatisfactory in one case, but I attribute this partly to the particular patient and partly to the imperfect application of the solution. Dr. Solis Cohen's experiments with it in the larynx have not been satisfactory, but we will doubtless soon learn how to obtain better results from its use in the fauces and larynx.

One of the remarkable properties of this drug, which I observed when I first applied it to the swollen mucous membrane of the turbinated bodies, is that of causing prompt and rigid contraction of these tissues. This action has proven to be uniform, and I have learned by experiment that the contraction may continue several hours. This property will render the cocaine almost a specific for the relief of the "stuffing up" of the nose which occurs in acute colds, hypertrophic catarrh, and hay asthma, as well as for the throat deafness, which results from swelling of the mucous membrane lining the Eustachian tubes.

Voluminous Enemata of Nitrate of Silver in Chronic Dysentery.

Before the Clinical Society of London, November 14, 1884, Dr. Stephen Mackenzie read a paper on this subject. He alluded to a former series of cases he had brought before another society, and stated that extended experience had strengthened his belief in the value of large enemata of nitrate of silver in the treatment of cases of chronic dysentery or dysenteric diarrhœa. The mode of procedure he adopted was as follows: The quantity of nitrate of silver to be used was dissolved in three pints of tepid water in a Leiter's irrigating funnel, which was connected by India-rubber tubing with an œsophageal tube with lateral openings. The patient was brought to the edge of the bed, and made to lie on his left side, with his hips well raised by a hard pillow. The terminal tube, well oiled, was passed about eight or ten inches into the rectum, and the fluid allowed to force its way into the bowel by gravitation. The injection rarely caused much pain, and often none. It usually promptly returned; but, when long retained, it was advisable to inject chloride of sodium, to prevent absorption of the silver salt. Various strengths had been used, from thirty to ninety grains to three pints of water; but usually one drachm of nitrate of silver was employed. The treatment was based on the view that, whatever the nature of dysentery, whether constitutional or local, in the first instance, the later effects were due to inflammation or ulceration of the colon, which was most effectually treated, as similar conditions elsewhere, by topical measures. Sometimes one, sometimes two, injections were required, and in some cases numerous injections were necessary; but in all the cases thus treated, many of which had been unsuccessfully treated in other ways previously, the disease had been cured. In most cases other treatment was suspended, but in some, Dover's powder or perchloride of iron, which had been previously administered, was continued or subsequently prescribed. The cases narrated were these: 1. One in which the disease had lasted several years on and off; two injections were used, and the case was cured in six weeks. 2. Second attack, duration uncertain; four injections used; cured in five weeks. 3. Duration two months; two injections used; cured in three weeks and a-half. 4. Duration five years; one injection used; cured in three weeks. 5. Duration eighteen months; two injections used; cured of dysenteric symptoms, but remaining under treatment for diabetes. 6. Duration fourteen months; one injection used; cured in seven weeks. The treatment, which

laid no claim to novelty, was brought forward to elicit the experience of others who had tried it, or to induce others to employ it in suitable cases.

Dr. Carrington gave as a reason for doubting the probability of Dr. Mackenzie's results being repeated, his own unsuccessful employment of the remedy used; but, in view of the favorable termination of the recorded cases, he had determined to give the method a new trial.

The President pointed out that the mode of treatment adopted did not originate with Dr. Mackenzie, and that that gentleman had carefully insisted on this fact.

Dr. Cullimore asked for information as to the duration of allied cases of disease treated in the hospital by other methods than that practiced by Dr. Mackenzie, and also whether the author of the paper was inclined to confine such treatment to cases of rectal dysentery, or to apply it to others as well. He commented on the fact that most of the cases recorded were those of sailors, and suggested that the favorable result might be, in great part, due to the improved surroundings of the patients, the physiological rest and appropriate diet, etc., afforded in hospital, as compared with the depressing surroundings of an existence on board ship. In his own experience of the treatment, he found that pain was produced, in one case, on the injection of two pints of water, holding forty grains of silver-nitrate in solution. In another case of dysentery, due to famine, he injected half a pint of water containing iodoform, but without effecting any good result. Opium and krameria were, in his opinion, the most useful remedies in this class of cases.

Dr. Dyce Duckworth had only resorted to the treatment by injection of silver-nitrate solution once; but one injection was made, and the result was not satisfactory. It should be remembered, he urged, that all so-called cases of dysentery were not alike. The disease varied much in different individuals, as was the case also with many other forms of disease, and this fact had not been sufficiently recognized by writers on tropical affections.

Dr. B. O'Connor asked how long a time had elapsed between the adoption of the treatment and the present.

Dr. S. Mackenzie said he had purposely used the term chronic dysentery, or dysenteric diarrhœa, in writing his paper, as being most appropriate to the kind of cases under discussion, these being characterized by teasing diarrhœa and considerable constitutional disturbance. In a previous paper, he had explained that the physicians at the Seamen's Hospital had spoken hopelessly of all kinds of treatment; but at the London Hospital, greater opportunities existed for making observations in this respect than at any similar institution, with the exception of the one just named; and in all his own cases, the effects of rest, opium, etc., had been tried in vain before resort was had to the injection-method of treatment. He alleged that rebellious cases were cured by the enema, and that it was, therefore, a resource to be adopted whenever the ordinary remedies failed. He himself would adopt it in ordinarily severe cases at the outset of treatment. He had no definite statement to make as to the permanence of the cure, the class of patients concerned being the most difficult of any to keep under observation; but, in this connection, it might be interesting to the Society to know that one patient cured by him had returned twelve months after being discharged, not on his own account, he being still well, but to solicit Dr. Mackenzie's good offices in behalf of a friend who was suffering, as he had been, from chronic dysentery.

Russian Baths.

In order to determine the influence of daily Russian steam baths on the healthy system, Dr. V. V. Godlevsky (*St. Petersburg Inaugural Dissertation*, 1883) made a series of careful observations on two quite sound and strong men, who, for the first ten days, daily took a simple vapor-bath, and then, after an interval of another ten days, daily took a vapor-bath, with rubbing and beating the skin by a *venik* (a bundle of birch twigs with leaves.)

The effects, as enumerated by the author, were as follows:

1. The pulse and respiration considerably increased in frequency.
2. The circumference and expansion of the chest became somewhat larger.
3. The energy of expiration and inspiration decreased.
4. The capacity of the lungs decreased.
5. The axillary and rectal temperature rose.
6. The weight of the body fell considerably.
7. The volume of the limbs increased.
8. The circumference of the belly decreased.
9. The muscular strength of the hands lessened slightly, and that of the feet and abdomen considerably.
10. The daily amount of urine decreased, but its density increased.
11. The excretion of nitrogen was considerably increased, the increase lasting for five days after completing a series of baths.
12. The excretion of phosphoric and sulphuric acids also increased, but less considerably.

The action of baths with the application of a *venik* is more powerful than that of simple vapor-baths.

The author thinks that vapor-baths administered daily for a certain more or less prolonged time may prove useful: 1, as a means of intensifying the process of metamorphosis in tissues; 2, as a powerful revulsive; 3, as a sudorific; 4, as a means of improving the action of the skin.

Accordingly, Russian baths are indicated: (1) in chronic muscular and articular rheumatism, as well as in gout; (2) in secondary and tertiary forms of syphilis; (3) in scrofula; (4) in obesity, and in plethora from overfeeding and sedentary life; (5) in the initial stages of catarrh of the nose, throat, bronchi, lungs, bowels, and bladder; (6) in chronic catarrh of the external auditory meatus (as recommended by Dr. Strom), the pharynx, tonsils, and nose; (7) in chronic inflammation of the spinal cord and its membranes (as recommended by Bartels, Frey, and Heiligenthal), and in hypochondriasis; (8) in chronic congestion of the liver, spleen, stomach, bowels, as well as in the algide stage of cholera; (9) in rheumatic, scrofulous, and syphilitic disease of bones; (10) in intermittent fever (in the stage

of rigor); (11) in apyretic cases of ascites and serous pleuritis, and non-cardiac dropsy; (12) in hydrophobia (Sanjez, Buisson, Turkish baths in hydrophobia were recommended by Dr. R. Neale); (13) possibly, in diabetes, as well as (14) in the cases where the formation of biliary and cystic calculi may be suspected.

The contra-indications for Russian baths are as follows: (1) all rather prolonged acute febrile diseases; (2) tendency to hemorrhage; (3) general weakness and exhaustion after acute diseases; (4) acute affections of the eye and ear; (5) uncompensated diseases of the cardiac valves, fatty degeneration of the heart, arterio-sclerosis of higher degrees, and aneurism; (6) tendency to pulmonary and cerebral congestion, plethora of higher degrees; (7) considerable pulmonary emphysema, phthisis in the last stage; (8) obstinate constipation from atony of the intestines; (9) pregnancy with tendency to abortion; (10) very hot Russian baths are contra-indicated, also, in the cases of old people, and infants.

Emetics in Hysteria.

Dr. Peyton Turner thus writes in the *Texas Courier-Record of Medicine*, November, 1884:

The administration of emetics in hysteria would no doubt be regarded as a rather severe measure by some practitioners, myself for one, were they employed indiscriminately. Obstinate cases, however, present themselves not infrequently, denoted by a recurrence of the convulsions, coma, etc., after restoration to complete consciousness by anti-spasmodics, cold douche, etc., and it is this class of cases in which emetics are especially valuable; in fact, where the usual remedies fail I have been led to believe from experience that the emetic treatment is probably the most efficacious at our command, and more especially when the paroxysms come on after the ingestion of food. No remedy should be extolled as curative without a reasonable trial of its merits, and to give a medicine we know will vomit alike in every case, would be incompatible with a proper course to pursue, and alike injustice to our patients. We know the effect of emesis on the nervous system, and this would probably explain in a nutshell their manner of controlling hysterical convulsions, and cases do sometimes present themselves in which this treatment is not only justifiable but imperative; and to make their usefulness more apparent, I herewith append a succinct report of several cases:

Case 1. I found in a semi-unconscious condition, globus hystericus well-marked, and without delay I gave an emetic, which was followed by free vomiting and a subsidence of all the symptoms. I will presently explain why I gave an emetic in this case.

Case 2. I was called to attend at midnight, and found her in hysterical coma. I managed to get a thimbleful of zinc sulphate down her, and when it began to act, it seemed to restore consciousness and all the normal functions at once, and she forgot to get sick any more that night. This case was a negress.

Case 3. I was called hurriedly to attend a lady at a hotel who was supposed to be dying from the effects of some poison. I diagnosed hysteria. She was having violent convulsions, alternating with coma. In this case I used anti-spasmodics freely without any signal benefit. I then tried the cold douche, which seemed to have a happy effect in ten minutes, but was only momentary; the convulsions would recur with such violence that four men could not hold her. I then tried fifteen grains of zinc sulphate, free vomiting ensued, and a cure was at once effected.

Case 4th was in a similar condition as the last, the usual remedies proved futile in like manner; the sulphate was administered with precisely the same results.

These four cases are the only ones in which I have given emetics, as I always try the common remedies first, and I find them successful in a large majority of the cases.

The first case here mentioned happened in my practice years ago, when I was a *kid*, and was practicing at that time in Louisville, Ky. The woman's husband came after me (probably because he could not get another doctor) in a great hurry, saying for God's sake to come as quick as I could, as his wife was about to strangulate. This thew me completely off my guard, and as I had just "hung out my shingle," I was more than anxious to go with him, and was ready at a moment's notice. It was about four blocks to his house, and sure enough I found the lady as I thought strangling to death, and grabbing at her throat as if she wanted to tear the trachea out by the roots. It scared me within an inch of my life; she was moaning terribly, and I studied what in the —— could be the matter with her. I tried to look very knowing, and her husband partly relieved my embarrassment by telling me she *ate an apple the day before*, and maybe the core had lodged in her throat. I examined her throat, but could see no *core*, not even a red spot that I could tell him was a *pathological condition of the copillary blood vessels*, but I told him the core was further down than I could see, and that an emetic would be the most scientific treatment; so I prescribed zinc sulphate, and, after explaining to him how it would produce, *inverted peristaltic œsophageal action*, took my departure, after assuring him that I would return about the time this action was taking place. I went back to my office as quick as I could (I almost ran when out of sight), got my medical works, and glanced hurriedly over the articles on *foreign bodies in the air passages*, but they did not seem to fit the case. My time being up, I went back, and found the inverted action of the cardia and œsophagus taking place as I told him it would, and after free emesis the patient was all right. A little girl stepped up to the bed and said, "Lor' me! Ma's got so she can talk since the doctor come."

These little incidents in mistaken diagnosis serve to remove the motes from our eyes, banish self-conceit, enliven us to the responsibility of our profession, substitute a further desire for investigation and knowledge, and we should ever be ready and willing to acknowledge the corn and be profited thereby.

—It is said that the application of a decoction of valerian root, an ounce to the pint, often relieves completely the pain of contused wounds.

Reviews and Book Notices.

BOOK NOTICES.

Surgical Handicraft: A Manual of Surgical Manipulations, Minor Surgery, and Other Matters Connected with the Work of House Surgeons and Surgical Dressers. By Walter Pye, F. R. C. S. 8vo., pp. 544. Price, $5.00. P. Blakiston Son, & Co., 1884.

There is a certain degree of novelty in the plan of this work which will recommend it to a wide circle of readers. Although written for an English public, and, in some respects, not quite suited to the surgical conditions of American life, the hints and instruction it gives are good everywhere.

The author begins with a section on the arrest of hemorrhage; this is followed by sections on apparatus for restraint and support, such as splints, bandages, etc.; on the immediate and permanent treatment of fractures; on the dressing of burns, wounds, ulcers, etc.; on cases requiring long mechanical treatment, as hip and spinal diseases; on surgical emergencies, as hernia, shock, drowning, and the like; on the administration of anæsthetics, and on pulling teeth, and such minor operations. A formulary and a good index close the volume.

It will be seen from this epitome of the contents that this is a very handy book to have on one's shelves, containing a great deal of just such information as the young physician likes to have at his fingers' ends, and a description of the latest and best methods of doing familiar things, that the old physician can profit by learning. It is reasonably well illustrated, and the mechanical preparation of the book is fairly done.

A Theoretical and Practical Treatise on Hemorrhoidal Disease, Giving Its History, Nature, Causes, Pathology, Diagnosis, and Treatment. By William Bodenhammer, M. D. 8vo., pp. 297. Wm. Wood & Co., New York, 1884.

There is, as the author says, room for a monograph on piles, but for a treatise of three hundred large octavo pages, there scarcely is room. A limit should be drawn to the size of a monograph. If the whole of medicine and surgery were written up on this scale, a physician would have time for nothing but reading. He does not make his living by reading, however, and it were well for both writers and publishers to remember this.

Apart from its needless prolixity, the work of Dr. Bodenhammer is a good one. It goes at great length into the history of the complaint, traces it from the dawn of history to the present day, explains the etymology of the name, gives a host of opinions of every debated subject with reference to it, and is full on the treatment.

For the young physician who has plenty of time on his hands and inclines to make a prolonged study of hemorrhoids, this would prove a satisfactory book. The "busy practitioner" will find life too short to undertake monographs of this magnitude.

Transactions of the Michigan State Medical Society for 1884. Lansing, Mich., 1884.

This is a neatly-printed pamphlet of about 200 pages, containing the usual proceedings and a number of original articles. Many of these are of marked merit, and in looking over them we cannot but regret that they should be buried in a volume of proceedings quite sure not to be seen but by a few hundred at most of the 50,000 reading medical men in the United States.

The subjects of the papers are: "Nasal and Aural Catarrh," "Chronic Inflammation of the Ear," "Granular Lids," "Placenta Previa," "Diphtheria," "Uterine Displacements," "Dysmenorrhœa," "Prostatic Hypertrophy," and similar topics of general and immediate interest to the practicing physician.

The number is one every way creditable to the Society and to the profession of Michigan.

Fourth Annual Report of the State Board of Health of New York. 8vo., pp. 448. Albany, 1884.

The increased attention to sanitary science is a cheering sign of modern legislation. Every state in the Union should have a well-organized and active Board of Health, which should publish every year a series of local investigations, such as are in the volume before us. It contains a number of reports on outbreaks of diphtheria, malarial fever, enteric fever, rubeola, typhus, and on milk, kerosene oil, glucose, pond nuisances, drainage, etc., all of them topics which immediately interest the lives, health, and comfort of thousands of citizens. The time will come when the gross neglect of such matters which now prevails in this and other States will be recorded in history as a proof of the low and semi-barbarous condition of our pretended civilization.

The New York report will be found a very instructive one by hygienists. It is embellished with maps and diagrams. Its statistical tables are full, and several illustrations from the microscopical work of the Board are inserted.

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CAPITAL PUNISHMENT.

We took occasion some time since to note that popular opinion in England is setting strongly against capital punishment. The leading journals and the leading minds are asking whether the purpose which it is designed to fulfill, namely, that of preventing crime, is being accomplished by it; and they seem inclined to hold the negative view, and to regard capital punishment as an unsatisfactory institution, while the *London Lancet* even goes so far as to hold up to ridicule the idea of a great nation like England *strangling* its malefactors. The advisability of capital punishment has occupied the serious attention of some of the greatest men that have ever lived, and arguments *pro* and *con* have not been wanting.

Judging from the experience of the past few years in this city, we would be inclined to think that popular opinion is setting against hanging as a punishment for crime, and that we are commencing to look upon capital punishment as but little, if any, better than judicial murder. Of course, we cannot afford, in the interests of civilization, to allow men to go free who are capable of killing their fellow-creatures; but whether we have the right to kill in turn, seems to be a question that is open to argument.

The fact that we have now in our prison a condemned murderer, who has been incarcerated for five years, in whose case the Supreme Court refused to interfere, and who has just now, after these long years of waiting, been refused clemency by the Pardon Board, is an argument tending to show that those presumably intelligent men who have charge of the administration of justice are very loth to hurry to death a human being.

The fact that a convicted murderess, relieved from the extreme penalty of the law on the ground of insanity, and committed to an asylum but a year ago, is now making what may be presumed to be a successful effort for restoration to absolute liberty, is but another argument in favor of the point we make, that popular sentiment in America is tending rather away than towards the idea of human vengeance. For, after all, it is but ven

geance. When a man is carried by passion or by liquor to the point that will induce him to kill a fellow-being, he has very little thought for the prospective punishment that awaits him. Of course, we all realize that capital punishment was not designed as an act of vengeance, but rather as a means of intimidation, of prevention against crime; but that it does not fulfil its intended purpose is, we imagine, becoming very evident.

Does it not seem brutal, to say the least of it, to put a rope around the neck of a man, and drag him up as we would a bull or a pig, until we have either choked the life out of him, or broken his neck? And does it not seem even more brutal when we realize that this action is taken by the order of men (and *a man* who for his assumed intelligence has been selected to sit in judgment on his fellow-men) who quietly and deliberately determine that a fellow creature shall be launched into eternity.

We do not for one minute wish to be understood that murderers should be allowed to go at large—by no means; but we do say most emphatically that no man, or body of men, can reasonably have the right to condemn a fellow-man to death. Murderers should be confined where they will have no power to work further mischief—this, we all concede; but at the same time, we can conceive of no right to *kill* a man because he has killed another.

It is the duty of physicians to enlighten the public on subjects like these; hence, we have felt called upon to write these words. In these days of civilization and advancement, let us consider well whether capital punishment is not a great blot upon our civilization, and let us look to it whether we are not harboring a relic of barbarism. Justice, law, and order, must be maintained; the man who interferes with the rights of his fellow-man must be punished; he whose liberty is dangerous to the welfare of his neighbor must be restrained of his liberty; but we again say that we doubt very much whether the proper way to accomplish this purpose is to deprive him of his life, and we imagine that popular sentiment joins in this doubt.

THE INCREASE OF THE OPIUM HABIT.

While visiting a patient in this city, we were led to inquire about a woman whom we had previously attended in the same house. The reply was that she had disappeared two days before, ostensibly going out for a walk. The suggestion proffered to our further questioning was, that "she was passing a day or two in an opium joint." No surprise was displayed at her disappearance, and evidently it was regarded as nothing unusual or noteworthy for one of her class to indulge in a prolonged spell of opium intoxication.

A few years ago such a thing was utterly unknown in the eastern United States; and when Dickens, in Edwin Drood, described such a den as he had seen it in one of the lowest slums of London, the English-speaking world scarcely understood him.

It is very different now. Here in Philadelphia, still more in New York, there has been a rapid introduction of opium-smoking during the last five years. There are no prohibitory laws against it, at least none that are effective; and the vice is all the more dangerous because it does not involve the victim in any public scandal, as does the act of drunkenness. The opium slave finds the "joint" fitted up with comfort, often in a quiet second-floor room, where the other indulgences of tobacco and liquor are also at his command. He can recline long hours in easy-chairs or on a sofa, and is not turned out at night to walk unsteadily home, as these places are for the use of their patrons at all times.

Companionship of both sexes, when he wants it, is at hand, for this seductive vice has its votaries in both. The woman who has lost her family ties and who has forfeited her own self-respect, finds in the dreams of opium that delusive happiness which she thought had forever been lost to her.

In his essay recently noticed in this journal, Dr. Meylert states that there are many indications that the opium habit is increasing in this country. He adduces several, and adds the suggestion, that doubtless many deaths of patients in hospitals and asylums, of prisoners, soldiers, etc., attrib-

uted to other causes, are really due to sudden deprivation of opium.

All experts are aware of the secrecy with which this indulgence is often guarded. Instances are not rare where a wife has for years been an opium habitué without the knowledge of her husband. We cannot form an estimate of its exact prevalence on account of this secrecy. But it is a formidable and increasing vice, commanding our most earnest solicitude; of this there can be no doubt.

COMPULSORY VACCINATION.

In a government of the people it is not always easy to draw the line between too great personal liberty and its just restriction.

Nowhere is this more difficult than in what pertains to the health of the community, and nowhere, we may add, are people more intolerant of restriction than in precisely this direction. That they should be asked to sacrifice, or even to jeopardize their interest to protect the health of others, is something they are very unwilling to admit. This is constantly seen in matters of quarantine and embargo. They ever encounter an active opposition even from the parties for whose benefit they are created, let alone from those who are only indirectly gainers by them.

The prejudice against compulsory vaccination is equally obstinate, although in this case it cannot be averred that such a measure interferes with anybody's profits, or with the sacred laws of trade. The opposition is indeed largely sentimental, and absolutely devoid of rational basis.

It arises in part from the dissemination of false information by a set of alarmists, who thereby seek a little notoriety which they cannot get through more creditable means, partly from a sensitiveness lest the liberty of the individual should be encroached upon in other ways if this entering wedge be allowed.

Nearly all the most intelligent members of the profession are distinctly in favor of such legislation. This is illustrated by the experience of the State Board of Health of Indiana. That body sent out a number of circulars to the principal physicians of the State, asking their views on this important subject.

All [the reporters but one were positively in favor of compulsory vaccination as provided in the questions given. One considered such a rule to be "undemocratic." Others provided that such vaccination should be with humanized virus.

Compulsory vaccination, as considered by the committee, meant vaccination of all persons at suitable times. Admonition should always precede the enforcement of the rule, and the approach of the complete application of such rule or law should be gradual; but in times of imminent danger, such as the approach of an epidemic, or actual appearance of a case of small-pox, all the members of a community should be compelled to undergo inspection, and if not protected, to be vaccinated. As a part of this gradation of enforcement, no one should be permitted to attend any school or institution of learning, either as pupil or teacher, without first having been vaccinated.

There can be no reasonable doubt of the excellent results accruing from such an enactment; and it is entirely consistent with the most liberal construction of our theory of government.

NOTES AND COMMENTS.

Nephrectomy.

The *London Medical Times* tells us that the literature of nephrectomy, a subject which has lately been somewhat prominently discussed, has recently been enriched by an account of a case to which its author rightly prefixes the term "puzzling." Abdominal section was performed on a woman, aged 52, for the removal of a large tumor due to calculous pyonephrosis of long standing. It is stated that the parts were much matted together, and that the pedicle of the tumor was transfixed and secured with a single ligature, being attached at the same time to the edge of the wound. The case did exceptionally well at first, but it was found, some hours after the operation, that no urine was being excreted, the bladder containing nothing but pus. On the second morning severe symptoms of uræmia set in, and a

fatal termination rapidly ensued, no urine whatever having been passed into the bladder since the operation. On post-mortem examination the remaining kidney was found to be healthy in every respect, with the exception of extreme anæmia and a rather excessive surrounding of fat. Microscopically, no changes could be noted in it. Unfortunately, no record is published of the visible results of the operation, except the fact that no peritonitis had taken place. The complete disorganization of the diseased kidney proved beyond doubt that all the urine must have been secreted by its healthy fellow for many months before the operation. Why, then, did the latter cease to excrete from the moment that the operation was concluded? It is to be regretted that more information is not afforded by Dr. E. Sonnenburgh, who reports the case in the *Berliner Klinische Wochenschrift*, No. 47, 1884, as to the exact structures included in the comprehensive ligature which was placed around the matted pedicle. Even on the supposition that some of the renal vessels or nerves had been so included, it would be difficult to account, however, for the production of simple anæmia, unattended by microscopical changes.

The Treatment of Gastrodynia.

The following instructive case of this obstinate and troublesome affection is reported in the *Medical Press*, December 17, 1884, by Dr. John W. Martin:

Miss R., æt. 30, came under my care October 3, 1884, suffering from pain in the stomach after meals, and the consequent dread of and loss of desire for food. When seen she looked quite worn and thin; complexion sallow; lips and gums anæmic; tongue whitish and lightly furred; bowels constipated. She felt a daily-increasing sense of weakness and inability to attend to her duties. Physical examination yielded negative results as regards the condition of the various organs. The case seemed one of dyspepsia consequent upon anæmia. The uterine functions were, with the exception of paleness of the menstrual discharge, normal.

I at first ordered bismuth, soda, and tr. nux vom. mixture with chloroform water; and calomel, colocynth, hyoscyamus pills to regulate the bowels. This giving no relief, I changed to pills of reduced iron and extract of nux vomica with meals, and as a laxative a mixture of sulph. mag. and mag. carb., with peppermint water. Again no relief being experienced, I placed her upon the following prescription:

℞.	Sodæ bicarb.,	ʒiss.
	Tr. nucis vom.,	♏xl.
	Liq. morph.,	ʒj.
	Sp. am. aromat.,	ʒiss.
	Syrupi zingib.,	℥j.
	Aquæ menth. pip. ad.,	ʒviij.

M. ʒj. to be taken four times a day.

The relief was immediate, and so far has proved permanent. Pain is now rarely felt, and only after indiscretions as to food. Relish for her meals has returned. She is now taking the reduced iron and extract of nux vomica pills with meals, and finds decided benefit from them. The bowels are regular, the tongue clean, and her complexion and general appearance much improved.

I am inclined to think the small dose of opiate was just the one thing wanting in my previous treatment, to help the lame dog over the stile.

Urea Not a Cause of Uræmia.

Before the New York Pathological Society (November 12, 1884), Dr. Peabody said that at the last meeting of the society he had expressed the opinion that too much stress had been laid upon urea as a cause of uræmia, his opinion being based more or less upon observations in the lower animals. Dr. Seguin had been of a similar belief, but spoke of experiments recently made, from which it would seem that uræmic symptoms might be produced in the lower animals by the injection of urea into the blood. Dr. Seguin had since informed Dr. Peabody where he could gain access to the records of the experiments to which he had referred, and Dr. Peabody took occasion to show to the society that it would require, according to the amount of urea necessary in these experiments to produce death by injection into the circulation of the dog, one pound and a half of urea to produce a fatal result in man. But it had been shown that in a man of one hundred and fifty pounds weight, dying of uræmia occurring in the course of kidney disease, the blood contained only nine one-thousandths of a pound of urea. There might be apparent fallacies in this manner of drawing conclusions, but he thought that it showed very conclusively that such experiments upon animals could give us little information as to the cause of uræmia in man. The injection into the blood of benzoate of sodium or sulphate of sodium, agents which were not in themselves poisonous, would likewise produce uræmic symptoms. The experiments cited went no further than to show that the injection of a certain amount of any foreign substance into the circulation would produce death; they

did not show that uræmia was due to the presence of urea in the circulation. He had seen several fatal cases in which there had been entire suppression of the urine, but none of the so-called uræmic symptoms.

Cocaine in Diseases of the Throat and Nose.

Dr. Morell Mackenzie thus writes to the *British Med. Jour.*, December 13, 1884:

"It may be interesting to know that I have found hydrochlorate of cocaine extremely useful in operations for the removal of nasal polypi. It is not enough to paint the growth itself, nor even the parts immediately surrounding its base; the solution should, as far as possible, be applied to the whole of the mucous lining of the nasal fossa. The remedy has also proved of service, in my hands, in those cases of laryngeal phthisis in which there is great odynophagia, owing to swelling of the epiglottis. Patients, who before could swallow only with extreme pain and difficulty, have been enabled to take food with perfect ease and comfort. The best time for swallowing appears to be about ten minutes after the application, whereas operations can be done after an interval of from three to five minutes. The difference is probably to be explained by the fact that in the former case the patient feels himself, at first, unable to make the attempt to swallow, from the total abolition, locally, of all sensibility to nervous impressions. In all cases, the anæsthesia persists for about two hours. Apart from the restoration of the power of taking nourishment, much relief is given by the mere absence of pain. When it is remembered how much suffering is caused to patients with inflamed and ulcerated throats by the continual necessity of swallowing or coughing up the copious secretion which is so troublesome in these cases, it is a comfort to have at hand a remedy which renders these acts painless without in any way affecting the general system.

"Both for the larynx and for the nose I have employed a 20 per cent. solution of the drug, made for me by Mr. Martindale. I think it likely that this, or a somewhat weaker preparation, would prove a valuable remedy in hay fever, or might even prevent the attacks."

Strangulated Hernia—Aspiration—Recovery.

The following case, which Dr. J. H. Leslie Allen reports in the *Brit. Med. Jour.*, November 29, 1884, possesses much practical value:

"On Christmas Day, 1882, I was called in by Dr. Lawton to see a farmer, aged about 70, subject to a large right inguinal hernia. It was usually reducible, but on this occasion had become obstructed, and could not be returned, though Dr. Lawton had diligently and carefully applied the taxis, and tried all the usual accessories—enemata, fomentations, etc.—in the hope of overcoming the obstruction. The hernia was of great size, filling and distending the scrotum, and felt hard and tense from imprisoned flatus. This careful trial of the taxis having failed, it became evident that, unless relief were soon afforded, the patient would sink, as the symptoms of strangulation had been for some time becoming more urgent; yet the man was old and feeble, in bad health, and not likely to survive an operation. I therefore suggested aspiration of the flatus, and a renewed trial of the taxis. Dr. Lawton accordingly passed a small needle of the aspirator well into the distended gut, which soon became perceptibly more flaccid, and, on further trial by manipulation, the gut slipped up at once. A draught containing twenty minims of tincture of opium was then given, a hot poultice applied over the groin, and absolute rest enjoined. Next day the patient expressed himself as feeling well. Half a grain of opium was given morning and evening, to keep the bowels quiet; and, after a few days, recovery was complete, though it was difficult to keep up the hernia an account of the great size of the ring."

Phenic Acid in Malarial Fever.

Dr. Wm. R. Pryor thus concludes a paper in the *Virginia Medical Monthly*, October, 1884:

Reviewing all the cases I have seen in which phenic acid was used, I think its range of usefulness is very limited. In the first place its mode of administration is extremely painful; and, although I have never seen a case in which abscesses had resulted from its use, yet after a few thousand minims have been given hypodermically. the abdomen becomes extremely sensitive. I always give the solution warm and through one puncture. The resulting lump I paint over with tr. iodini. Again, when employed in very large quantities it does seem to have some effect upon the malarial poison. But it must be used in such quantities as seriously to endanger the proper performance of the function of the kidneys. I have never heard of a case of well-established intermittent fever being cured by this remedy alone. The most I have ever seen it accomplish is a slight amelioration, and that temporary, of the symptoms. I am only sorry that Case No. II. would not let me sacrifice his comfort a little longer to

the cause of science. The only circumstance where I would ever again use this method of treatment would be one where the stomach and bowels refused to retain quinine, and where hypodermics of quinia caused abscesses; or, in other words, it shall always be with me a last resort. Certain it is that it can never replace quinia preparations in the treatment of cases of malaria poisoning.

Cocaine in Sleeplessness.

Cocaine (or cucaine, as our English cousins call it,) has been recommended for a variety of purposes, and now Mr. J. Swain reports the following cases in the *Brit. Med. Jour.*, December 20, 1884:

Case 1. A man, aged 33, suffering from aortic disease and albuminuria, had been troubled with insomnia for a fortnight. Three minims of a 4 per cent. solution of hydrochlorate of cocaine (equal to $\frac{1}{8}$ of a grain) were administered hypodermically. The patient remarked that "he slept better than he had done for a long time." The following night, one drachm of valoid of coca (a liquid extract, each drachm of which represents an equivalent quantity of the pure drug) was administered. The man did not sleep well. Two drachms of the valoid of coca were then given, and sleep was induced. The patient has continued to take this dose nightly for the past three weeks, the sleep being natural and undisturbed.

Case 2. Two drachms of the valoid were given with an equally beneficial result to a patient convalescent from an empyema, and suffering from sleeplessness.

Case 3. A woman, with tertiary syphilis, was kept awake by pain in a large rupial sore on the thigh. Two minims of the 4 per cent. solution of the hydrochlorate of cocaine, dropped on the ulcerating surface, relieved the pain, and the patient slept.

To show that coca and cocaine have no toxic action—at all events, in moderate doses—it may be worth mentioning that, in a case of rheumatism, the dose of hydrochlorate of cocaine was gradually increased to six minims ($\frac{1}{4}$ of a grain) hypodermically, and the valoid increased to five drachms, without any bad effect.

Permanganate of Potassium in Gonorrhœa, Leucorrhœa, and Suppurating Buboes.

Professor Roberts Bartholow thus writes in the *Medical News*, November 22, 1884:

In gonorrhœa, leucorrhœa, and suppurating buboes, a strong solution—five to ten grains to the ounce—is an efficient remedy. It has proved to be especially so in gonorrhœa. When the attack is recent, the solution should not be stronger than two grains to the ounce, but the more chronic, the stronger the injection may be made, of course within reasonable limits. In suppurating buboes, the contents of the sac should be drawn off with an aspirator if still intact, or thoroughly evacuated if ruptured, and the cavity filled with the stronger solution mentioned above.

Lacerda's experience with permanganate in snake poison renders it almost certain that in the corresponding poison of syphilis the local application of this remedy at the earliest moment to an infecting chancre may be productive of the best results. In all forms of unhealthy and sloughing syphilitic sores—in sloughing phagedæna, for example—it deserves more extended use than has heretofore been made. Finely pulverized, it can be dusted thoroughly over the diseased surface and introduced into all the sinuosities. By the same mode of application it can be used in lupus and epithelioma, and will, doubtless, be found more effective than the chlorate of potassium, which, applied in this way, has lately been much urged on the attention of the profession.

Kussmaul's Coma.

Before the Midland Medical Society (November 19, 1884), Dr. Saundby read a paper on Kussmaul's coma, based upon two recent cases. He described its symptoms, drawing attention to the peculiar character of the dyspnœa as constituting a distinguishing feature of pathognomonic significance. He especially insisted upon the fact that this form of coma was not restricted to diabetes, one of the cases related being an example of its occurrence in advanced renal disease. He referred to the various theories which had been advanced to explain it, and stated precisely the exact position of the acetonæmia question. He explained the methods used for testing for acetone, and showed Nobel's test with nitro-prusside of sodium and ammonia. In his opinion, the symptoms were due to the action of some poison nearly allied to acetone. He referred to Minkowski's suggestion that they might be the result of de-alkalization of the blood from the presence of some acid in great excess. After discussing the predisposing and exciting causes and the diagnosis, he pointed out that it was not invariably fatal. Treatment in the early stages should be eliminatory, by purgatives, if the bowels could be got to act, and later on the intravenous injection of a neutral saline solution should be tried. The re-

sult in one case was to restore animation for the time; and where recovery was possible, more permanent results might be expected.

Infantile Diarrhœa.

In the *Med. Press*, November 26, 1884, are published some notes of a paper on this subject by Mr. O. Lankester, which treated of simple diarrhœa unconnected with organic diseases of the intestines. He divided the subject into the four varieties of non-inflammatory diarrhœa, inflammatory diarrhœa, choleraic diarrhœa, and dysentery. Of these four he considered only the two first varieties. He mentioned cold, bad feeding, dentition, and worms, as the chief causes, and sketched out the diet of infants. He mentioned the complications of diarrhœa, as blood in the stools, prolapse of rectum, and spoke of the use of opium in connection with the latter. Mr. Lankester next alluded to the uncertainty of diagnosis in cases of diarrhœa caused by dentition. With regard to the inflammatory diarrhœa, the causes may be the same as those of simple; also bad smells. In considering the question of diet, he spoke of the necessity of avoiding the use of milk, and advised the substitution of broth, also white wine in cases where collapse is present. He alluded to the use of mustard baths and brandy, and an antiseptic treatment, washing out the stomach, and small doses of soda benzoates frequently. In cases of chronic forms of inflammatory diarrhœa, the utmost attention should be paid to diet, and pepsin and raw meat are very useful.

Witch Hazel as a Hæmostatic.

Dr. W. O. Bridges thus writes in the *Therapeutic Gazette*, October, 1884:

"The editorial reference in the August number of the *Gazette* on Witch Hazel in Menorrhagia, attracted my attention on account of the seemingly beneficial results which have followed the use of the drug in various forms of hemorrhage, in my recent practice. I was prompted to its use by Ringer, who recommended it in all varieties of passive hemorrhage, his favorable results having been obtained with it particularly in hæmaturia and bleeding piles. Within the past few years I have prescribed it for bleeding piles, menorrhagia, and continuous bloody oozing from the uterus four weeks after confinement. In each one of these cases there was no further trouble after twenty-four hours. The doses which I gave were somewhat smaller than those referred to in your article. I followed Ringer's plan of giving two drops of the fld. extract hourly. I was skeptical in regard to its use at first, but inasmuch as no other remedies were prescribed at the same time in the cases referred to, nor even rest enjoined, I was inclined to give witch hazel the credit. Other uses for which Ringer recommends its trial are pulmonary hemorrhages, hematemesis, and varicocele.

Boracic Acid Oil in the Treatment of Burns.

In the *Brit. Med. Jour.*, December 20, 1884, Dr. C. J. Bond says it is now a year since he began to use boracic acid oil as a dressing for burns at the Leicester Infirmary, at first simply in the form of a mechanical suspension of the powdered acid in olive oil. He has found that 18 grains of powdered boracic acid dissolved in a drachm of hot glycerine, and added to an ounce of olive oil, forms a kind of imperfect emulsion, the glycerine retaining the acid in solution when cold. This can be easily shaken up with the oil. This makes a non-irritating and doubly antiseptic dressing, and extensive burns treated thus, and covered with a layer of some antiseptic wool, require to be disturbed but seldom, and if not perfectly aseptic, are far "sweeter" than when dressed with, for instance, the carron oil.

As a lubricant for catheters, sounds, etc., this boracic oil with glycerine possesses advantages. It is superior to olive oil, because of its antiseptic property; and better than carbolic oil, because it is less irritating and much more stable; boracic acid being non-volatile. Glycerine itself, too, is a dressing of considerable value by virtue of its dehydrating power.

A Contribution to the Clinical Study of Rotheln or German Measles.

It appears to be a somewhat general opinion that Rötheln, or as it is not infrequently called, German measles, is a disease of such minor importance as to be unworthy of scientific research; but a disease, the victims of which succumb as early as the fourth day, must be of sufficient importance to demand our attention and the best efforts of our armamentarium.

Dr. W. A. Edwards, during the winter and spring of 1881–2, studied in the Philadelphia Hospital over one hundred cases of the disease, and the results of his observation he details in a valuable clinical paper in the October number of *The American Journal of the Medical Sciences*.

As regards the diagnosis, he says the eruption appearing on the third day, first in the face, its

rapid extension, its gradual shading off into the surrounding skin, its elevation, more particularly in the centre of the patch, which is also the brightest in color, together with the fact that desquamation first shows itself there, are all points, which, as far as the eruption is concerned, render the diagnosis plain; furthermore, the rash almost at once occupied whole the body, and never presented a crescentic outline.

Hydrochlorate of Apomorphine.

In *Squibb's Ephemeris* for November, 1884, we read that hydrochlorate of apomorphine is one of the new preparations of the present Pharmacopœia, but it is very little used and of doubtful general utility. The two principal objections to it are, first, that it is uncertain, harsh, and dangerous in its action, and probably has as many casualties charged against it, considering its limited use, as any remedy proposed within the past fifteen years. Secondly, it is unstable in composition, and especially liable to change, and becomes partially or wholly inert by keeping.

Its single point of value seems to be that it is a prompt, though not very certain emetic, whose action is said to be directly upon the nervous centres, and not reflex. Therefore, when given hypodermically, it will empty the stomach by emesis, provided the nervous centres are still sensitive to its action. This peculiarity of action is supposed to adapt it to the evacuation of all poisons from the stomach, except the narcotics in the later stages of their action.

Subcarbonate of Iron in Surgery.

In an article in a recent number of the *Journal de Médicine* of Brussels, Dr. Timmermans calls attention to the great advantages possessed by the subcarbonate of iron in the treatment of wounds and ulcers, and especially when these last are chronic, as it causes too much pain as long as any inflammation is present. He regards it as efficacious as iodoform, without its disagreeables and dangers. In recent wounds it arrests hemorrhage and hastens cicatrization, and recent ulcers due to excoriations or contusions are rapidly healed. After the ulcer has been washed and dried, its surface and edges are covered with a layer of the powder from one to three millimetres in thickness, over which is placed a pledget of charpie or lint, and a bandage. During the first days the dressing is renewed from two to three times a day, according to the amount of discharge. Care must be taken not to allow of accumulations of pus, it being necessary that the iron should be in direct contact with the ulcerated surface.

Nerve Suture and Excision of Bone.

The following novel operation was recently performed by Professor Von Bergmann in the Royal Clinic at Berlin:

A boy, aged 15, was brought there, who, in June of last year, had been severely wounded in his right upper arm by a circular saw. The wound had healed up in about ten weeks; but the boy had lost all power of motion, and all sense of touch, in his right arm and hand. It was supposed that the nerves of the upper extremities had been severed; and, in order to reconnect them, the scar was reopened, and the ends of the nerves uncovered. As it was impossible to join them as they lay, a piece of the humerus, two inches long, was sawn off. The two ends of the nerve were then joined, and it is hoped that the boy will recover the use of his arm and hand.

A Uterus Exhibiting the Results of Trachelorraphy.

To a recent meeting of the West London Medico-Chirurgical Society (Oct. 3), Dr. Imlach showed this specimen from a patient who died of cancer of the stomach four months after performance of the operation of trachelorraphy in the Hospital for Women. Before operation there was deep bilateral laceration, and the cavity of the uterus measured 3½ inches. At the time the speaker received the specimen, the cavity of the uterus had diminished to 2½ inches, thus showing, as he claimed, the beneficial results of the operation. He next showed a fibrous tumor, from the vaginal wall, and remarked that such tumors were very rare, they not being even mentioned by either Edis or Thomas in their works.

Hazeline in Menorrhagia.

In the *Practitioner*, August, 1884, p. 141, Mr. M. Chute describes a valuable remedy for menorrhagia, which is a very frequent ailment in women in Cape Colony. Two drachms of hazeline, given twice or thrice a day, will act so quickly that it is not necessary to anticipate the flow; but when menstruation, after it has lasted the ordinary time, is not closing naturally, hazeline, given as above, will effectually restrain it, and after hemorrhage has ceased there is no advantage in continuing the drug. Another good result produced by hazeline is, that it relieves the pain

of dysmenorrhœa in a very quick and marked manner.

A Case of Resection of the Pylorus for Carcinoma.

In the October issue of *The American Journal of the Medical Sciences*, Dr. Randolph Winslow, of Baltimore, reports with full details, an unsuccessful case of pylorectomy performed with antiseptic precautions upon a woman aged 42, suffering from carcinoma, who, in her own words, was "dying every day." She survived the operation two hours.

Correspondence.

An Interesting Case of Dislocation at the Knee.

Eds. Med. and Surg. Reporter:—

November 6, 1884, I was hastily called to see Walter Duncan, æt. 6, who, while in his "high chair," turned it over, the entire force of the fall being on his right foot.

I found him suffering greatly; the leg flexed almost to a right angle upon the thigh, and held so by clonic contractions of the hamstring muscle. Using some force, the limb was straightened, and I readily diagnosed dislocation of the tibia forwards. The patella lay in a depression just above a protuberance—the head of the tibia—and could be readily raised in the fingers. The condyles pressed hard into the popliteal space. The limb was three-fourths of an inch shorter than its fellow, and at once returned to its position of right angle to the thigh upon its release.

It was readily reduced over my knee, coming into place with a slight snap. It was placed upon a posterior splint with a foot-piece, by means of which slight extension was made, and bathed with a solution of lead-water and laudanum to allay inflammation, which, for three days, ran high, necessitating the use of morphine to control the pain. At the end of twelve days the posterior splint was removed, and a "Bavarian" plaster splint applied. Passive motion was begun the same day. The patient was able to walk with the aid of crutches at the end of the third week, and at the end of the fourth the splint was thrown aside and the knee encased in a laced knee-cap, which he still wears. He at this writing has as good use of this limb as his left, all stiffness having disappeared.

I thought this case worthy of publication, not only because of the rarity of luxations at the knee-joint, but also because it presents two interesting features.

The first of these is the age of the patient. The youngest case on record of which I have knowledge; the next being that of a boy æt. 10, the patient of Dr. White, of Buffalo, N. Y.

The second feature I desire to notice is the position of the limb, that of flexion almost to a right angle, while we would expect dorsal flexion of 30° or 40°. I can account for this only in this way: that there was extensive laceration of the ligaments (a supposition which the subsequent inflammation confirms), and that the hamstring muscles did not slip over the condyles as they usually do.

Spence Redman, M. D.
Platte City, Mo.

News and Miscellany.

Causes of Death in New-Born Children.

Dr. Nobiling, of Munich, whose labors in forensic medical research have earned him the reputation of a high authority in Bavaria, has recently published in the *Ærztliches Intelligenzblatt* a series of contributions on the pathological appearances observed in the bodies of children that have died from asphyxia shortly after birth. He has examined a large series of bodies, and has arrived at the conclusion that the asphyxia often attributed to overlying, and even to obscure pulmonary disease, is too often due to foul play. He is particularly suspicious of extravasations of blood, and sums up his conclusions on that subject. Extensive subcutaneous extravasations could always be traced by Dr. Nobiling to external violence, including such as might be received in protracted and instrumental labor, and attempts to restore animation. Effusions of blood in the muscles of the neck and along the course of the great vessels are always caused by forcible strangulation. Hemorrhages under the capsule of the liver or in its substance are invariably the result of external pressure, and so are lacerations of the peritoneum, liver, spleen, and kidneys. These injuries are by no means rare results of violent attempts to promote respiration, and Dr. Nobiling has traced them also to rough and clumsy handling of a new-born infant by male relatives or incompetent nurses. Hemorrhages in the tissues of the umbilical cord are very rarely caused by the mechanical forces of labor, or even by artificial replacement of the prolapsed cord; they generally result from firm manual pressure on the cord, or from intentional laceration. Circumscribed collections of blood under the scalp or integuments may be either due to mechanical labor, or to many other kinds of external violence; the same applies to hemorrhages in the substance of the lips, tongue, palate, and pharynx, which are always traumatic. Bleeding from the external auditory meatus and extravasations behind the ear are also the results of violence, not disease. Dr. Nobiling has often found a portion of the fluid or solid material which caused the infant's death in the nasal fossæ, mouth, larynx, trachea, bronchi, pulmonary vesicles, œsophagus, stomach, tympanum, or Eustachian tube, sometimes in only one of these anatomical structures and regions. When blood is found lying free in the same parts, it may have proceeded from the infant's nose, or have entered its mouth during parturition, being of maternal origin. The principal lesson to be learnt from the researches of Dr. Nobiling is that all internal and intestinal extravasations of blood in the body of an infant are to be regarded with suspicion, and to be considered as traumatic, being due to violence causing visceral injury, or complete and sudden asphyxia.

THERAPEUTICAL NOTES.

Crystal Pepsin.

The surgical value of pepsin as a dissolvent is well shown in a note in the *Northwestern Lancet*. The editor of that journal states that he was once called upon to relieve the distress occasioned by a bladder distended with clotted blood. He injected a scruple of Jensen's crystal pepsin in an ounce of warm water, and had the satisfaction of seeing the patient pass a full stream of urine and disintegrated blood, in less than twenty minutes.

Peptonized Cod-Liver Oil.

This valuable form of cod-liver oil is prepared by Messrs. Reed & Carnrick, of New York city. It is a combination of pure cod-liver oil and condensed milk digested, the oil being artifically prepared for assimilation with nature's emulsifier—pancreatine, instead of gums, alkalies, Irish moss, and water. It will keep indefinitely, having been tested for over a year at a decomposable temperature. It is prepared with milk and also with hypophosphite of lime and soda.

We observe that among the food products exhibited at the International Health Exhibition, London, 1884, from the United States, were *beef peptonoids* and *maltine*, products of the same firm. Both of these preparations carried off the gold medal and highest award against numerous competitors in their respective classes. All food preparations were critically analyzed at this Exhibition by a jury composed of the best chemists in the country.

Medicinal Wines.

For medicinal purposes the pure Hungarian wines imported by Mr. L. Reich, of New York, have stood the test of years, and deserve the highest encomium. He makes his selections with intelligent and conscientious care.

Supervision of Noxious Trades.

Before the Society of Medical Officers of Health (England), November 21, 1884, Mr. Alfred Spencer, of the Metropolitan Board of Works, read a paper on this subject. He referred, in the first instance, to the effect of the Metropolitan Building Act of 1844, section 55 of which prohibited the erection of any dwelling within fifty feet of a building used for the business of a blood-boiler, bone-boiler, fellmonger, soap-boiler, tallow-melter, tripe-boiler, slaughterer of cattle, sheep, or horses, and any other like business, offensive or noxious. It was also forbidden to carry on any such business within forty feet of any public way, and fifty feet of a dwelling; and any existing business of this character, within these distances, was to be abandoned at the end of thirty years. By themselves, these causes would have led to the abolition of such places within thirty years, but a later section gave the justices power to mitigate the penalty, provided the best means were adopted for preventing nuisance. In 1874 an Act was passed which repealed the last sections, and thus certain businesses came to be prohibited; while others could only be established by consent of the local authority. The Metropolitan Board of Works, under this Act, made regulations for slaughter-houses, which had been very beneficial in their operations, and as many as 620 out of 1,429 had been abolished. Offensive businesses were mostly situated in Bermondsey, in Belle Isle, Islington, and in Southwark. A second set of by-laws under this Act dealt with the business of a blood-boiler, a bone-boiler, a manure-manufacturer, soap-boiler, and tallow-melter. The means for preventing nuisance in these businesses was stated in detail, and Mr. Spencer then commented on the qualifications necessary in the inspector for influencing the masters and men engaged in them. A short account was then given of trades dealt with by the Alkali Works Regulation Act of 1881, which includes within its operations works for sulphuric acid, for gas-liquor, for nitric acid, and sulphate of ammonia. The supervision of these businesses was in the hands of inspectors appointed by the Local Government Board. Other businesses were then briefly considered, such as brick and ballast burning, cement-making, etc.; and, in conclusion, Mr. Spencer alleged that the London of today was far more free from nuisance resulting from trades, in consequence of the restrictions under which they were placed.

Specimens of Irish Sanitation.

From a foreign exchange we learn that the following are a few from many excerpts which illustrate the way in which the Irish Local Government Board administers the sanitary law under its control. We may remark that the state of affairs here recorded is to be found in one of the premier towns of Ireland, and much worse is to be found elsewhere throughout the country. At the last meeting of the Carlow Town Commissioners, Dr. O'Meara, medical officer of health, reported the existence of a number of nuisances, including an accumulation of manure and filthy material in a lane. He found nuisance dangerous to health, caused by the occupier keeping a donkey in the back room of his dwelling-house, and pig manure and other nuisance in his yard. A similar report in the case of John Rafter, who kept five pigs in his dwelling, was made. The following report was also read: "I inspected the ten houses. These houses consist of one room each, which serves as bed room and living room. At the rear are two privies, which are a mass of filth and abomination, and are supposed to serve as privy accommodation for the ten houses. In the yard there is a pool of fœtid, stagnant water, in addition to other filth. I am of opinion that it is impossible for healthy conditions to exist in a single room used for all purposes of eating, drinking, sleeping, and cooking." The following was read from Dr. Bolton: "I beg leave to state that as a rule dwellings are most unsatisfactory, particularly in the Newtown district, where, I may say, they are without exception unfit for human habitation, and in many instances life is shortened from the effects of the poisonous fumes arising from the coal of the locality being consumed in cabins without chimneys, or with very imperfect ones. I have condemned cabins in the Newtown district on former occasions, and they were closed, but after a short time the occupiers again got possession, and some of them are still existing in the dwellings."

Germany on Vaccination.

From the *Lancet* we learn that the German Commission appointed to inquire into the subject of vaccination has, with the exception of the three members opposed to vaccination, unanimously declared for vaccination with humanized lymph rather than with that from the calf. At the present moment we do not know upon what grounds this preference depends, but we assume that the fact is recognized that *direct* vaccination —*i. e.*, vaccination with lymph which is not stored—"takes" far better, and therefore gives much more protection against small-pox than vaccination with stored lymph. Vaccination with calf lymph throughout the country must necessarily be performed with stored lymph; but direct arm-to-arm vaccination with humanized lymph is a possibility everywhere. Calf-lymph has its use in enabling practitioners to renew their stock, and also in giving opportunity for the direct vaccination of numbers of persons in large centres of population. If in future it can be found that calves can be inoculated with small-pox virus and the virus modified by such transmission through the animal, it is probable that the use of calf-lymph will serve this purpose more than heretofore.

Indianapolis Academy of Medicine.

The Marion County (Indianapolis) Academy of Medicine, at their regular meeting, Tuesday evening, January 6, 1885, elected the following officers for the year 1885:

President.—Thomas N. Bryan, M. D.
Vice-President.—Alembert W. Brayton, M. D.
Secretary.—Ferree W. Frank, M. D.
Assistant Secretary.—Joseph O. Stillson, M. D.
Treasurer.—T. M. Rome, M. D.

The following gentlemen were elected as censors:

Dr. F. S. Newcomer, Dr. L. L. Todd, Dr. Geo. Cook, Dr. E. Hadley, Dr. R. E. Hampton, and G. V. Woolen.

The President appointed Drs. T. B. Harry, Brayton, East, Stillson, and Hodges as the Pathological Committee for 1885.

The Society listened to a paper by D. C. Bryan on "Stricture of the Urethra."

Items.

—The loneliest doctor in the world is the ophthalmologist who hasn't written an article on cocaine.

—Dr. Kolbe, of Leipzic, whose name is associated with the chemistry of salicylic acid, has recently died.

—Surgeon P. H. Bailhache, of the Marine Hospital Service, has been assigned to duty in Philadelphia.

—"Louis Pasteur: His Life and Labors," containing the life-work of this distinguished savant, has been translated into English.

—A drachm of balsam copaiba to an ounce of white vaseline makes an ointment popular with New York ophthalmologists in treating chronic conjunctivitis.

—The anæsthetist's bag should always contain a pair of tongue-forceps, a Fergusson's gag, a scalpel, forceps, and tracheotomy-tube, and a few capsules of nitrite of amyl.

—A child has recently died at Rye, England, from shock to the nervous system, caused by fright at seeing a boy wearing a mask. She lost her reason the first day after the occurrence.

—The publication of the *British Journal of Homœopathy* has been discontinued, and the editors, Drs. Dudgeon, John Drysdale, and Hughes, are to have a testimonial presented "for their eminent services to homœopathy."

—The announcement that Dr. R. von Leudenfeld has discovered histological elements having nervous functions in the sponges of the Australian shores, possesses considerable interest for biologists.

—Deep snoring, and an insensitive conjunctiva, are good signs of insensibility, but the most trustworthy one of all is subsultus tendinum of the fingers.

—The Board of Trustees of Columbian University, Washington, D. C., on the unanimous recommendation of the medical faculty, have decided to admit women to the study of medicine in that institution, with all the privileges heretofore accorded only to males.

—The Ohio State Sanitary Association will hold its second annual meeting at Columbus on the 5th and 6th of February. Full information as to the programme, railway rates, etc., may be had by addressing the Secretary, Dr. R. Harvey Reed, Mansfield, Ohio.

—During 1883, the six faculties of medicine in France conferred 662 diplomas of doctor of medicine, viz., Lille 20, Nancy 21, Lyons 43, Bordeaux 44, Montpellier 69, and Paris 465. During the same year 692 diplomas of doctor of medicine were conferred in Germany.

—According to Dr. Woodhouse Braine, in the *Brit. Med. Jour.*, November 29, 1884, to get the full effect of nitrous oxide, it must be given pure, all air being rapidly excluded; and if the patient wear a beard, it had better be wetted, or, what is more effective, have a little soap rubbed on it.

—A museum of hygiene, similar to the Parkes' Museum in London, will shortly be opened at Turin, and extensive purchases in the health department of the Exhibition have been made by Dr. Pacchiotti, who is one of the chief promoters of this useful institution.

—The *Lancet* learns that Dr. Klein and Dr. Gibbes, of the English Cholera Commission, have made a preliminary report in which they express themselves as entirely at variance with Koch. They deny the invariable presence of the comma bacillus in cases of cholera, and have been unable to inoculate the lower animals.

—Making a patient keep his eyes closed while recovering from the ether is a great aid in preventing sickness; for, owing to the patient feeling giddy, any object at which he looks appears to sway from side to side; and this, by itself, is sometimes enough to produce a feeling akin to

Treatment of cholera

In view of the [illegible] visit of the cholera to [illegible]ized. [illegible]ear any contri-

—If we wish to avoid sickness after anæsthetics, it is of the utmost importance that the patient should not be shaken when being lifted from the operating table to the bed; and if the operation have been performed on the bed, then the bedstead should be allowed to remain without being moved in the least for four hours, as the slightest movement is sometimes enough to start the vomiting.

—At a meeting of the Paris Hospital Medical Society, called expressly to consider the question of the projected admission of women as *internes* of the Paris hospitals, the meeting was addressed by Professor Verneuil in favor of the ladies, and after a brilliant reply by Professor Trélat, the vote was almost unanimously pronounced against the project, there being only four in its favor.

—Before the New York Obstetrical Society, Dr. Henry F. Walker mentioned a case that had come under his observation in which a lady became pregnant for the first time after seventeen years of wedded life. One year after her marriage the os externum was incised, but there had been no subsequent treatment directed to the removal of sterility.

—According to an analysis of the census taken in 1881, there were in all India at that time, among male British-born subjects, 321 "surgeons and physicians," 30 "apothecaries, hospital and medical assistants, and students;" 2 "unqualified practitioners," and 30 "chemists and druggists." Among the native population, in the inclusive class of "physicians, surgeons, and druggists," there were 123,579 males and 75,239 females.

—Local health officers in the State of New York are [illegible]ter to be appointed only after a com-[illegible]amination, in accordance with the new [illegible]ice rules. The examination papers are to be prepared by an examining board of five physicians, to be designated by the Civil Service Commission, and the examinations are to be held in the presence of a county judge, who will transmit the papers to the Commission.

—The *Medical Press*, December 17, 1884, publishes the following as an excellent pill in chlorosis:

℞.	Ferri sulph.,	
	Sodæ bicarb. ana,	ʒj.
	Pulv. tragacanth,	gr. vj.
	Syrupi,	q. s.

Divide into forty-eight pills, and let one be taken thrice daily. Later, two may be taken instead of one.

—Betz ("Memorabilien") states that the temperature of the bladder, and hence that of the urine contained in it, is affected by that of the surrounding tissues. Therefore, in inflammatory conditions of the pelvic cellular tissue and peritoneum, the patient often complains that her urine feels "hot." If cystitis can be excluded, it is quite probable that this symptom points to some inflammation in the neighborhood of the bladder.

—To a recent meeting of the Pathological Society of London, Mr. Treves showed a man who presented an extraordinary appearance, owing to a series of deformities, some congenital exostoses of skull; extensive papillomatous growths and large pendulous masses in connection with the skin; great enlargement of the right upper limb, involving all the bones. From the massive distortion of the head, and the extensive areas covered with papillomatous growth, the patient had been called "the elephant-man."

—In the *Æsclepiad*, July, 1884, Dr. Richardson gives a formula for the administration of amyl nitrite by the mouth:

℞.	Amyl nitrite, pure,	ℳxxxv.
	Ethylic alcohol (sp. gr. 830),	ʒv.
	Pure glycerine,	ʒiss.

To make a mixture of twelve doses. One fluid drachm to be taken in a wineglassful of warm water. In asthma this method is specially recommended.

—The Paris Medical Faculty has lost one of its most brilliant professeurs-agrégés in the person of M. Henninger, who died recently at the age of thirty-four, from tuberculous meningitis. His professorial thesis, on the action of soluble ferments on albuminoids, attracted great attention in the medical and scientific world. By competitive examinations he gained the position of Agrégé Professor of Chemistry in the Medical Faculty, and frequently took the place of the late Professor Wurtz in the professional chair.

—Dr. Lombe Atthill (*Brit. Med. Jour.*, November 29, 1884), says that iodoform, in the shape of slender crayons made up with gum, which can be passed through the cervical canal into the cavity of the uterus, has been recommended in the treatment of some forms of painful menstruation. He has tried it in these cases without much benefit. It may, however be used with advantage in cases in which a fetid discharge issues from the uterus, as is sometimes the case, in some forms of chronic endometritis occurring in elderly women.

—According to Dr. Thomas More Madden (*Brit. Med. Jour.*, November 29, 1884), for any intra-uterine treatment, it is essential, first, that the orifice and cavity of the uterus, if not already sufficiently patulous, should be mechanically expanded for this purpose; secondly, that, whatever application is employed should be brought into actual contact with the true intra-uterine surface. These propositions may appear too self-evident to need notice here. Nevertheless, any failures in intra-uterine medication arise, in nine cases out of ten, from their neglect.

QUERIES AND REPLIES.

EDS. MED. & SURG. REPORTER:—

In case of rupture or laceration of the hymen found post mortem ten days after death, the segments being capable of complete reconstruction, so as to restore the hymen to its normal form, there being very slight decomposition, how long before death must the hymen have been ruptured?

B.

[We doubt if any one could accurately answer this, unless he had himself carefully inspected the parts.—EDS. REPORTER.]

THE

MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

AN AUXILIARY METHOD FOR THE REDUCTION OF DISLOCATIONS.

BY H. ASTHALTER, M. D.,

Of Pittsburgh, Pa.

Many theories have been advanced to explain those causes and hindrances which sometimes make the best efforts to reduce a dislocation futile. The obstacle to the reduction has been looked for, especially by the older surgeons, in the contraction of the muscles, which, through the dislocation of a joint, are thrown out of equalization of action. And it cannot be denied that the contraction of the muscles plays an important part, and furnishes an obstacle, especially the moment an attempt at reduction is made. These contracted muscles will make the bone less easily movable, and draw it more or less tightly on the underlying one. The defenders of this theory thought if they could paralyze the muscles they would be able to reduce any and every luxation.

But the falsity of this theory has long ago been made apparent by the fact that in some cases the dislocations of joints (artificially produced) on the cadaver could not, in spite of expert efforts, be reduced.

Then, further, in some cases all the tendons of the muscles that could make any resistance were severed with the knife, yet the reduction was impossible. Again, the fact that the dislocation of the ends of the fractured bone produced by the contraction of the muscles is easily overcome by mild extension. And we may add that, in later years, the administration of anæsthetics has proven beyond all doubt that this theory, seeking the sole cause of hindrance in the contraction of the muscles, cannot hold good.

The principal hindrance, Malgaigne (as cited by H. B. Schindler) thought, was to be found in the friction of the dislocated head and the underlying bone. Although we always have friction to contend with when manipulating a dislocation, yet we believe it to play but an unimportant part; of course, in this particular, the irregularities of the region bordering immediately on the articulating surface of nearly all bones must not be overlooked.

Others looked for the difficulty in the capsule itself, and here there are different conditions possible; first, it may be a fibrous bundle torn from the one or other side of the capsule, and crowded between the articulating surfaces. Roser has shown this condition to occur, and really to be the hindrance in some of those cases of dorsal luxations of the thumb, where every effort at reduction has failed.

Secondly, it may be owing to the capsular tissue being flexible. The capsule itself is first violently distended in one direction before the rupture takes place, when the wound or rent will actually be smaller than the body that just passed through it.

This difficulty will be increased as soon as the edges of the rent become swollen and render the capsule less pliable, as it also tends to make the opening, which is necessary for the return of the luxated head, more difficult to pass. As far as my own opinion is concerned, I have always thought that the smallness of the rent in the

capsule was sufficient to explain the difficulty in the majority of cases.

Again, undoubtedly, there are cases in which a tendon or a bundle of muscular fibres, or a sesamoid bone, or all, as easily imagined, get between the articulating surfaces and make reduction difficult or impossible.

After E. H. Weber's discovery, that atmospheric pressure was a factor in retaining the head of a bone in its socket (for instance, the hip-joint). Voelkers, of Germany, maintained that this was the only obstacle we had to contend with in the treatment of dislocations.

Further, when swelling and inflammation of the region of the joint are present, they in various ways constitute a formidable drawback to reduction.

In the pre-anæsthetic period many ways were resorted to to produce the relaxation so necessary for the reduction of a dislocated bone. The method most frequently resorted to was venesection, continued until fainting set in. Others gave opium until its narcotic effects became apparent. Again, some made use of the alcoholics, to the same extent. Powerful emetics, as well as hot and cold bandages, were resorted to quite often.

But since the introduction of anæsthetics, these methods have all been brought into disrepute. And even with this assistance we have seen, in some cases, extreme force resorted to where mild and intelligent manipulation would easily and surely have succeeded. We must not forget, the moment blind force is resorted to, that we are really not doing any more than the henchman (scharfrichter) and shepherd of olden times, in whose hands this branch of surgery, before it was reduced to a science, used to be (at least in Germany), with the exception of some few cases. We can never say positively with what degree of celerity the bone may slip back into its place. The anæsthetic saves the patient all pain, and allows us to make every manipulation which we by experience (and the nature of the dislocation) know to be appropriate; still we think it wrong to apply the same in every case. Anæsthetics are quite safe, but not absolutely so. My experience with chloroform has put me on "my guard" in the use of this narcotic, and I will relate to you a few cases which may be of interest. I have seen three deaths occur while the operation was being performed, death in each case being superinduced by the anæsthetic. The operation each time was performed by our professor of surgery, and the anæsthetic administered by expert assistants. The first patient died of asphyxia, the result of spasmus glottidis. He was a robust, hearty man, 43 years of age; he suffered from a panuritium sub-periosteum of the left index finger. When this was to be lanced, he refused to undergo such a slight operation, unless he was put under the influence of a narcotic. The latter had been scarcely applied three minutes, when he showed symptoms of asphyxia, whereupon tracheotomy was immediately made, but the man was dead.

The second patient was a lady about 50 years of age, whose general health was moderately good, and who was operated upon for cancer of the left mamma. After the operation was completed and the Lister bandage was being adjusted, the patient suddenly became pale and expired.

The third patient was a male, 17 years old, somewhat pale and emaciated, who was being operated upon for pes varus after the method of Davies Colleyes. The operation was about one-half completed, when the action of the heart became suddenly weak. A hypodermic injection of moschus was immediately made, but the patient rapidly sank, and in a few minutes the breathing ceased entirely.*

The first patient received about 8.0 (℥ij.) of the narcotic (chloroform); the second about 120.0 (℥iv.); and the third about 60.0 (℥ij.). I need scarcely remark that every effort toward resuscitation was made by the operator and his assistants (of whom I was one).

The fact that local anæsthesia can be brought about by pressure is generally known. Hyrtl relating the experience of Hunter says, a man whose crural and sciatic nerves were made numb by a pelott well bound on each nerve, was amputated (exact place of amputation not stated). The man was of a very sensitive nature, and for this reason the experiment was made. After the vessels had been ligatured, the pelotts were removed, when Hunter discovered a small vessel which had been overlooked, bleeding, and while adjusting a ligature on this one, the patient manifested more pain than during the entire operation.

Since the invention by Paré of the tourniquet, the knowledge that when sufficient pressure was brought to bear on a nerve anæsthesia would be the result was general.

Tamburini, in citing Brissaud and Richet, says they found (in the hypnotic state of the patient) that the latent contractility of the muscles of an extremity, made anæmic with the Esmarch band-

*The diagnosis of the last two cases was paralysis of the heart.

age, returned only after removing the bandage, and with the return of the circulation of the blood.

It is well known how completely a swelling dependent on obstruction to the return of the venous blood will disappear upon the application of pressure.

Anæmia, generally speaking, conveys the idea of insufficiency of blood, a lack in quantity, or better, a defect in quality. But the anæmia artificially produced in an extremity with the elastic bandage is entirely different. Here we have not only an entire absence of blood, but of all lymph and residual fluid that may be in the tissues (bone tissue is here excluded).

When the blood and serum retreat before the applied bandage, the result must be that the walls of the capillary spaces will enclose upon each other. This enclosure of the walls of the capillaries, as well as the capillary spaces in the tissue, will cause a shrinkage of all the tissue, brought under the influence of the pressure. That this shrinkage actually takes place (as it can theoretically be expected) I have proven to the satisfaction of myself, by actual measurements made of the circumference of an extremity, before and after the application of the bandage. Why we do not see any wrinkles of the skin I can only explain from the fact that the skin is elastic and can lessen its dimensions or shrink without wrinkling, and again, on the ground that the adipose tissue, where it is present in heavy layers, will be sufficient support to hold the skin smoothly. That shrinkage takes place is beyond all doubt; the question arises with us, of what value is this shrinkage in luxations? It is plain that if pressure will lessen the size of all the tissues brought under its influence, then not only swelling that may be present will partially or entirely disappear after applying pressure, but also the natural size of the tissue will be reduced. It follows then that the general swelling of the tissue, which will be reduced in size, will shrink and make the way for the returning head of the dislocated bone more spacious and easy to traverse. Nearly all local swelling of an acute nature is the result of pressure, whether the capillary vessels are enlarged by temporary paralysis of the vaso-motor nerves, or whether the capillary spaces are filled up and distended by migrating cells. The pressure may also be of the purely mechanical kind, as for instance in paraphymosis.

Any method which consists in the application of an Esmarch or an India-rubber bandage in the same way as Esmarch has recommended for amputation and sequestrotomia, has for its object first, to reduce swelling (cause shrinkage); second, to create partial or complete anæsthesia; third, to throw the muscles out of action.

To gain this object the bandage must be tightly adjusted, and its central or upper end must be brought to bear on the origin of those muscles that may pass to or beyond the dislocated joint. The method can be applied only to those joints peripheric from the shoulder and hip-joint. No physician need have any fear whatever to apply the elastic or rubber bandage as tightly as it lies in his power.

Those cases reported from Langenbeck's clinic and elsewhere, where damage was done especially to the nerves, were due to the use of the flat tube as originally applied by the inventor. This tubing has been discarded in Germany, and the rubber bandage adopted in its stead.

The indications for the use of the elastic bandage are:

First. In those cases where a diagnosis is not possible owing to the swelling. The swelling resulting from dislocation is usually very painful, and an anæsthetic should always be used.

Second. Where, after repeated attempts with or without an anæsthetic, the reduction was not successful. In such cases we may assume that the capsule or the edges of the rent may be swollen; a bundle of fibrous or other tissue may have lodged itself between the articulating surfaces; therefore, the even pressure of the elastic bandage tends to make the parts lax and cause shrinkage. It seems to me the results with this method will be particularly gratifying when applied to the luxations of the smaller joints. (It is estimated by the different authors that from one-third to one-half of the dorsal luxations of the thumb are irreducible.)

Should a case of this nature be brought before us, and after having used mild manipulation and force without success, then the question arises, What shall we do? We can perform an operation, having for its object the severing of the tendons and other obstructing tissue, or the excision of the joint. This operation requires skill, and, like all operations, is not without danger, and the result is by no means perfect in all cases. Otherwise, the patient will be left to his fate; that is, to leave the thumb in its dislocated position. Our inability to reduce the dislocation will deprive the patient of the use of one-half of his hand.

We see this method is limited to certain joints and certain conditions. That the method is pain-

ful we will admit; but the time to resort to it is when the manipulations that are practiced by the expert surgeons have failed to reduce the luxation.

Aside from the object of this method, we think it ought to be applied in those cases indicated above, for the following reasons:

First. There is only ordinary skill necessary for its application.

Second. It can be applied in from five to fifteen minutes.

Third. It leaves *no injury behind.*

Fourth. We will by this method, in nearly all cases, save the patient the pain and risk connected with an operation that is, at its best, doubtful in its results.

To satisfy myself as to the value and practicability of the application of pressure in cases of luxations, I made a series of experiments on the elbow-joint of the rabbit. For several reasons this joint is the only one that can be used for this experiment. But even here we have such a strong capsular ligament and a long, upwardly-curved olecranon, and very high processus corono ideus, to contend with, that sometimes a fracture was much easier to produce than a luxation. I accordingly severed subcutaneously the anterior part of the capsular ligament, and in this way was able to produce a posterior luxation of the ulna. Although a luxation brought on in this way can in nowise be compared with those brought about by accident, yet my results (with the aid of the bandage) were so favorable that I feel justified in publishing and recommending this method.

As already stated, we admit that this method is painful; yet if the indications above set forth are strictly adhered to, the question of pain cannot be taken into consideration.

In conclusion I must say that should success not attend the first application of the bandage, then another similar application must be made. The central bandage must remain in its position while the peripheral one is being readjusted. Now after the readjustment of the peripheric bandage, the central one must be removed and re-applied as before.

3716 *Butler street.*

INEBRIETY A DISEASE.

BY G. C. ROY, M. D.,

Professor of Materia Medica, etc., Southern Medical College, Atlanta, Ga.

The editorial comments with the caption "A New View of Inebriety," in the REPORTER of November 15, upon the article of Dr. T. D. Crothers, published in a late number of the *Alienist and Neurologist*, make the opinion of Dr. C. so in accord with the views I have for a long time held upon this subject, that I cannot forego the opportunity of reporting some cases which have come under my observation, and which, in my judgment, corroborate these views.

Quite a large experience, and very careful observations with this class of unfortunate individuals, compel me to the belief that with many *inebriety is a disease*, apparently inherited and likewise contagious; and where this inherited predisposition exists, resistance to the contagion is almost beyond the power of the victim.

We see this in relation to other diseases; and why may not drunkenness be controlled by the operations of the same law?

Of many cases which present themselves to my mind, I will give only two:

1. Over 35 years ago, when a boy, I accompanied my father on a professional visit to a most accomplished gentleman and cultivated physician, then ill with what proved to be his last sickness. His constitution had been wrecked by periodical sprees extending through a number of years, but his mind was clear and brilliant, and his conversational gifts, as always, unusually fine.

On this occasion, in giving my father a history of his life, he remarked, that as long as he remanied at his home, in an adjacent county, that he never felt the desire for intoxicating drinks, and he often remained there, successfully engaged in his profession, twelve or eighteen months, without even the *desire* to indulge; but whenever occasion called him to the "old homestead," in the adjoining county, and he had crossed the line dividing the two counties, there came upon him, like a deadly nightmare, an indescribable desire for strong drink, which he could not prevent or avert any sooner or easier than he could withstand a glass of water when suffering from the most intensely burning thirst imaginable.

Now, this morbid desire would possess him as soon as he crossed the county line—at times when he had not been drinking for months, when he had all his reasoning faculties about him, and when he was struggling with himself to prevent just such a calamity as had so often and so sadly befallen him under just such circumstances. Now what was this but a contagious disease, the contraction of which, his system being ripe for it, he could not ward off any more than he could prevent an unseen attack of small-pox, or any

contagious disease to which he may have been exposed?

It is a fact, that as soon as he would recross this fatal county line on his return home, this strange disease would leave him, and he would have no thirst for strong drink, even after a terrible debauch.

This gentleman had several brothers, all of whom, so far as I know, suffered from this terrible disease, and died naturally or by violence at a premature age.

All of these parties were citizens of my native State—Virginia. Now, whether this influence is mental or physical I am not prepared to say, but am inclined to believe it is both.

2. I have now in charge one of the most highly-cultured ladies I ever met, a widow, young, handsome, and well-to-do, who is another sad victim of this dreadful malady. About four years ago I was called to see her for insomnia and extreme nervousness. We were then entire strangers to each other, and I knew nothing of her past history. I gave her a recipe containing ammonii bromid. with tr. hyoscyami; but having been recalled in the next twenty-four hours, I was informed by her mother that the medicine had made no more impression than so much water, and then for the first time I was very delicately and reluctantly told by her mother that she feared her daughter's unhappy condition was produced by excessive indulgence in alcoholic stimulation, which she used as an antidote for her grief at the death of her husband.

After this interview I went to work to gain the confidence of my patient, and to elicit from her a true history of her life in connection with the inroads of this terrible disease.

She said that until her marriage, some six or eight years previously, she was afraid to use wine or other stimulants of that kind, seeing its evil effects in the male members of her family; but her husband used wine at dinner, and his cellars were supplied with the finest imported liquors, to which she had convenient access, and the qualities of which she would sometimes test.

This unfortunate custom of her husband proved to be the Scylla of his wedded life, and the Charybdis upon which her bright young life has been wrecked. I learned from others, that before his death this contagious disease, the germs of which were latent, and which existed, I have since learned, in most of the other members of her immediate family, was developed to such an extent as almost to make an irreparable breach between them, and would probably have done so but for his early death, which was, however, in no way due to dissipation or over-indulgence. This gave her unrestrained license to feed the disease until it had produced the deplorable condition in which I found her.

Since she has been under my care, I have never seen more honest and vigorous efforts made to accomplish an end, than she has made to rid herself of this fearful curse. She is perfectly happy and contented if it is not about her, and she knows she cannot get it; but if it is in the house and she knows it, or if she passes on the street a place where it is kept, even a saloon, and thinks she can get it, she will often make the effort.

With all this burning, this terrible thirst for strong drink, she is a perfect lady, and when under its influence, her deportment shows the intuitive qualities of the lady. She will weep over and lament the terrible spell that is upon her, as if she had murdered her own beautiful little daughter.

She has a brother who is an excellent, sober citizen as long as he remains on the plantation, but whenever he goes from home, and meets with convivial friends, he has no control over himself whatever. That inebriety is oftentimes a disease —*a terrible disease*—and its victims should be greatly pitied rather than condemned and despised, I do not for one moment doubt. The great problem to solve in connection with this subject is, What is the remedy?

INVERSE TYPE OF TEMPERATURE IN TYPHOID FEVER, WITH A REPORT OF TWO CASES.*

Temperature Peculiarities in Epidemics, with a Report of Seven Cases in One Family.

BY W. C. HOLLOPETER, M. D.,
Of Philadelphia.

The classical investigations of Wunderlich, Thierfielder, and Traube, have done much to simplify the study of fever, and by their deductions they have rendered it possible for us to differentiate typhoid from all other continued fevers by its temperature alone. This universal tendency to refer a given symptom to an established, or partially established, law, has done much to lessen the interest of individual work; for those cases marking the exception are, as a rule, looked upon as complications, and slight causes are frequently brought forward to explain the apparent departure from the established rule. Dr. J. C.

*Read before the Philadelphia County Medical Society, November 26, 1884.

Wilson, in his admirably-written work on "The Continued Fevers," tells us that "marked deviations from the typical course of the temperature are always due to special causes. These causes, in many cases, cannot be discovered by the most searching investigation. On the other hand, upon inquiry, clinical facts of importance are often discovered, and it is therefore the duty of the physician, in every case when marked deviations occur, to make diligent search for their cause."

I enunciate a well-recognized fact when I state that every physician in general practice has had cases of typhoid fever where the temperature record has been irregular, when, at the morning or the evening visits, the thermometer has registered the same, or has shown some unusual feature in the evening exacerbation, or morning remission, departing in some unsatisfactory manner from the gracefully-arched curve of Wunderlich.

It has frequently been my lot to treat cases of fever having every symptom of typhoid, yet not responding to the well-marked type of temperature, as described by Wunderlich. For a long time it was very difficult to assign any cause for the variation, although it is natural for complications to disturb the rule, especially when we anticipate a typical curve in the temperature chart.

Dr. Wm. Pepper has stated, in a recent clinical lecture, that "it was the exception, and not the rule, to find a typical case of typhoid fever." Although every symptom may be uncertain, or even frequently wanting, in some cases of typhoid fever, yet I believe the temperature, the peculiar form especially, remains the most constant factor. and, as Grissinger states, it "generally controls the situation."

During the last seven months, I have had under my care a case of typhoid fever in which the temperature record corresponded to the "inverse type," as described by Traube.

Bäumler, in drawing attention to this unusual character of the temperature, states that, in the great majority of cases, the daily fluctuations follow the rule of health, the exacerbation taking place in the evening; we sometimes meet with cases where this order is reversed, the rise taking place in the morning, and the remission occurring in the evening.

This "inverse type," so named by Traube, of the daily fluctuations of a febrile temperature, has been observed in some rare instances in typhoid fever.

I have been unable to find any additional reference to this unusual type of temperature in the systematic treatises on fever; Liebermeister or Murchison do not mention it in their works, nor have I been able to find any clinical reports bearing on the subject, in any of the medical journals.

The clinical notes of my case are as follows:

Frank M., aged 14, thoroughly healthy parents, was taken ill May 15, 1884. My friend, Dr. Schoales, being the family physician, was sent for. The doctor was indisposed at the time, and I was requested to take charge of the patient. I found that the boy had been sick for two days, a slight chill occurring three days previous, and ever since he had been feverish, restless, and stupid; he had refused food and complained of headache; he had also slight nose-bleed and loose bowels. The history of the case was not unusual, having very well-marked typhoid symptoms, and was of interest in the character of the temperature alone, which was as follows:

	A. M.	P. M.	PULSE.
May 15	102⅘°	102°	100
" 16	104	103⅖	108
" 17	103½	103	108
" 18	103⅘	102⅖	112
" 19	105⅖	104	116
" 20	104⅗	101⅖	96
" 21	103⅗	102⅘	108
" 22	100	102⅕	96
" 23	99⅘	99	96
" 24	100⅘	100	96
" 25	101⅗	101	96
" 26	101⅘	101	100
" 27	98⅘	99⅕	100
" 28	100	99⅖	100
" 29	100⅕	99	100
" 30	101⅗	99	98
" 31	101	97⅖	98
June 1	100⅘	99	100
" 2	98	98⅖	98
" 3	98⅖	97⅘	98

In this case the boy had been complaining for a few days, according to the statement of the parents, before advice was called in. How much longer he had been ill we are unable to state, but, judging from the elevation of the first temperature (102⅘°), the case was evidently well on in the first week.

The exacerbation recurring so regularly in the morning, and the remission taking place as faithfully in the evening, caused me to watch the case with unusual vigilance. We could hardly be mistaken in the character of the fever—Dr. Schoales subsequently visiting the case with me frequently and corroborating the diagnosis; the stupid and listless countenance, the distended and tympanitic abdomen, the rose-colored spots, few, but constant throughout the illness, the gurgling in the lower portion of the abdomen, the loose

bowels, the nose-bleed, the deafness, all conjoined to render the diagnosis certain. Then the duration of the illness, while not very severe, extended over four weeks, which corresponds to the average duration of uncomplicated typhoid fever.

The treatment of the case was such as to have but little effect on the temperature, except to lower it; diet exclusively of milk and milk food; the recumbent position faithfully maintained; large and well-ventilated room, thoroughly disinfected. No drug was used likely to influence the fever, with the exception that, during the prevalence of the highest records, thirty grains of quiniæ sulphatis were exhibited in ten-grain doses, two hours apart, during the night. This was ordered on three successive evening visits. Cold-water sponging of the body was continued frequently as long as the temperature remained above 102°. We were unable to discover any complications whatever, in fact there were none; no bronchial irritation, no disturbance of the alimentary tract. The course of the fever was uniformly regular, the various symptoms occurring in their usual order, and the whole phenomena of the fever convincing as to its character, except the very important factor noticed in the *inverse type* of temperature.

The want of uniformity in the temperature record of the case just noticed, recalls the facts in a patient I had under my care nearly three years ago. The clinical notes recorded on the back of my temperature sheet at the time are briefly as follows:

Walter, æt. 7, was a well-developed boy, and the youngest in an exceedingly healthy family. The mother informed me that the boy had commenced to manifest a disinclination for food and play five days before any trouble was suspected. I was therefore called in on the evening of the fifth day. I found the little fellow quite delirious, with a temperature of 103⅖°, a full pulse of 130, respirations 26, face flushed and apparently swollen, eyes congested, skin dry and hot, bowels confined. Ordered a fever mixture.

In the morning, temperature had fallen to 100⅕°, pulse 100. The patient had relapsed into a quiet sleep during the early morning hours. The skin had become moist, On a more careful examination I found the abdomen tender, somewhat tympanitic and distended. The mother stated that there had been during the past ten days occasionally slight nose-bleed. The bowels showed a disposition to be free, yet, while not constipated, they had not been open regularly every day, now one or more free movements occurred daily. The third day, end probably of first week, if not more, the temperature, with a single exception did not go above 102°, but had a gradual decline. The interesting feature was the morning record, which was higher than the evening. This unusual feature continued for twelve days, the amount of variation was from one to one and a half degrees.

On the twelfth day, about the twentieth of the attack, the morning temperature reached 103°, without any other unusual symptom, after which it changed and ran as a typical case of typhoid fever in convalescence: morning 100°, evening 102°; morning 98⅘°, evening 101⅖°, etc.

The downward curve was thus continuing uninterruptedly until the seventeenth day, when the temperature ran up to 102° again; following this rise, the morning record marked 98°, and an intestinal hemorrhage of over four ounces of dark blood, following an unusually large fæcal movement.

The thermometer never registered a temperature after this above 100°. The case made a good recovery, convalescence slow. In this case we had a temperature curve closely following an ordinary typhoid fever chart, with the unusual exception of the twelve days of *inverse type*, with no discoverable complications to explain the cause.

I have not deemed it expedient to enter into an accurate analysis of each and every symptom of the foregoing irregular cases, knowing it to be exceedingly burdensome, yet I hope that I have sufficiently outlined the general features of typhoid, the phenomena of which are so constant as to make a diagnosis practically certain.

I wish now to present the salient points in a group of seven cases, occurring in the form of an epidemic in one family, in which the victims followed each other to bed in rapid succession, four of whom suffered very severe and prolonged relapses. All, however, eventually made a good recovery. It is not my intention to narrate these cases as especially unique or exceptional; but as taking place under one roof, and springing from one well-recognized cause, the variation in the temperature record alone became an interesting element of study.

The fever occurred in a very healthy German family; the parents, as well as the children, were free from predisposing weakness.

Case 1. Mary, æt. 13, was the first to take sick. I made my first visit to her December 6, when I obtained the following history: The patient had been complaining, for nearly a week, of weariness, chilliness, aching in limbs, back, and head,

loss of appetite, and a general disinclination to any physical exertion. I found her at 12 m., with a temperature of 104⅘°, pulse 112, skin hot and dry, puffiness around the eyes, with an injected conjunctiva, face dark and flushed. During the day, had diarrhœa, with vomiting. At 8 p. m. of same day, vomiting (continuing) of thick tenacious mucus, tinged with blood and bile; bowels were opened seven times during the afternoon. Since my morning visit, the girl has had low muttering delirium, but can be aroused by speaking in a loud voice. The back-ache was so severe as to merit especial mention, it being more pronounced than is usually found in bad cases of typhoid. The girl constantly complained of it during the first ten days. On the same evening, at 9 p. m., the thermometer had registered 105⅘°. In the morning it was 104⅘°; in the evening it was 105°. During the day and night, vomiting and purging continued nearly hourly—fifteen times, by the nurse's report.

At the end of the eighth day, the second day of my visiting, the back-ache continued violently, the hands being involuntarily placed in that region. Bowels continued loose, vomiting the same. Distention and tenderness of the abdomen decidedly marked, with gurgling in right iliac fossa, tongue heavily coated, dark and foul, sordes on teeth and lips. Vomiting discontinued on third day after taking her bed. Temperature 104⅘° in the morning, 105° in the evening; low muttering delirium, alternating with violent outbursts; three or four well-defined, rose-colored spots, at this date made their appearance on the abdomen. After the fourth day, probably the tenth or twelfth day of her sickness, the temperature did not run higher than 104⅘°, but did not fall below 102° until the eighteenth day. One very noticeable feature in this severe case was that, for two weeks, every other morning's fall was less or intermittent in character, while the evening exacerbation remained the same. During this period, there existed the wildest delirium, it being difficult at times to retain her in bed; bowels frequently moved involuntarily. The girl gained her strength very slowly; it was five weeks before the temperature approached normal, and it was ten weeks before she was able to leave her bed. She, however, made a good recovery.

(*To be continued.*)

—The city physicians of Atlanta, Ga., receive a salary of eighty-five cents a day, and furnish their own medicine.

NOTES ON THE TREATMENT OF EPILEPSY.*

BY CHARLES K. MILLS, M. D.,

Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic and College for Graduates in Medicine, etc.

His remarks applied chiefly to the medicinal treatment of epilepsy proper—grand mal, and petit mal. He did not intend to refer to the treatment of convulsive seizures due to tumors, meningitis, spinal disease, etc.

As to the curability of epilepsy, some apparently authentic cases of cure were on record. After looking over the subject, he could only recall seven cases of apparent or real cure in his own practice, private and hospital. In all of these the attacks remained away for from more than one to more than three years. Gowers mentions a number of cures, at least, cases in which seizures had not recurred for as much as four, five, six, or seven years. Several of these cases were children. Three of the seven cases alluded to by Dr. Mills were children. All observations as to the cure of epilepsy were necessarily imperfect. After a number of years, the attacks recur again. Although, however, the absolute curability of epilepsy might be doubtful, certainly great benefit from treatment is to be derived in most cases. It is wrong to such patients not to treat them.

He had used the following remedies, singly, three or four times daily, in a series of cases, during the last ten years: Bromide of potassium, grs. x. to ℥j.; bromide of sodium, grs. x. to ℥j.; bromide of ammonium, grs x. to ℥ss.; monobromide of camphor, grs. iij. to vj.; hydrobromic acid, f.℥ss, to f.℥ss.; iodide of potassium, grs. v. to ℥ss.; biborate of sodium, grs. xv. to xx.; chloral hydrate, grs. x. to xv.; oxide of zinc and valerianate of zinc, grs. iij. to x.; nitrate of silver, gr. ¼ to gr. ½; tincture of belladonna, ♏x. to xv., or extract of belladonna, gr. ¼ to gr. ½; extract of cannabis indica, gr. ⅛ to gr. ¼; fluid extract of cocculus indicus, ♏j. to iij., or tincture of cocculus indicus, ♏v. to x.; nitrate of potassium, grs. v. to viij. Other remedies, which he had only used in combination with some of the above drugs, were as follows: Conium juice, f.℥j., or fluid extract, ♏iij. to x.; tincture of digitalis, ♏v. to x.; sulphate of strychnia, gr. 1/40 to 1/30; Fowler's solution of arsenic, ♏ij. to v.; fluid extract of ergot f.℥j. to f.℥ij., or extract of ergot (Squibbs), grs. iij. to vj.; iron, cod-liver oil, and quinine.

*Read before the Philadelphia Neurological Society.

The bromides were certainly the best remedies, and the bromide of potassium, in his opinion, stood at the head of the list. The bromide of sodium came next best to the bromide of potassium. He thought the bromides affected the nerve centres directly. The mixed bromides were better, usually, than any one of them used singly.

The bromides could be advantageously combined with other drugs. The combination which he had found, on the whole, the best for long-continued use was, bromide of potassium, grs, xv; bromide of sodium, grs. xv; solution of the arsenite of potassium (Fowler's solution), ℥ij; conium juice, f. ʒss, or the fluid extract of conium, ℥iij to v. This was generally made up with syrup of orange and some bitter infusion. Another good combination, mentioned also by Gowers, was the bromide of potassium and tincture of digitalis. It was only especially valuable in cases complicated with weak heart or mitral diseases. Monobromide of camphor had no advantage over the bromides. Hydrobromic acid was efficient in very large doses, but so much water had to be given with it that the amount to be swallowed was appalling to the patient. It sometimes irritated the stomach. Borax was not of established value, but helped a few cases temporarily. He found the iodide of potassium, unless especially indicated, had little value used alone in the treatment of epilepsy. Chloral hydrate is not of much value when given alone, but with the bromides, in cases uncomplicated with cardiac disease, sometimes makes a useful combination. Trousseau's belladonna treatment had been used without noteworthy success. Cannabis indica was not to be depended upon. He had tried cocculus in six cases at the Philadelphia Hospital. None improved, and four were made worse by its use, one of the four becoming insane while taking the drug. At the request of Drs. Reichert and Hinsdale, he had used the nitrite of potassium in seven cases. Of these, only one seemed to be benefited, and some were made worse by its use. When the bromides had to be stopped, the zinc salts or the nitrate of silver were the best substitutes; but they could only be relied on for a short time.

The way to treat epilepsy, in his opinion, was to simply have a plan of treatment, and carry it out over a series of months or years. He would, for instance, first put a patient upon a single bromide, say fifteen grains three times a day, to be increased until a decrease in the number and severity of the paroxysms was produced. He kept him upon this perhaps for a month. He then used the mixed bromides, or some combination of bromides with other drugs, preferably the bromides, arsenic, and conium prescription. He watched the condition of the patient, and, if necessary, put him on cod-liver oil, quinine, or iron. With reference to nitrates, bromates, etc., he said that there was probably some chemical or chemico-physiological reason for inefficiency. The *ites* and *ates* would probably *never* give as good results as the *ides*. Dr. Mills believed with Dr. Pepper (Med. and Surg. Reporter, January 12, 1884), that close attention should be paid to every point in the daily life of an epileptic—to diet, rest, and hygiene—but he did not, with his present experience, believe that a genuine case of thoroughly-developed epilepsy could be cured, or even greatly benefited, without drugs. Harm, however, might be done by over-use of drugs.

Among the surgical and external means of treatment he had successfully used, were, excision of cicatrix, removal of neuroma, actual cautery, and blistering to the neck or head. He said he did not use counter-irritation to the scalp, but was a strong believer in the actual cautery, used after Brown-Séquard's method, to the nape of the neck.

Hospital Reports.

NOTES FROM THE PHILADELPHIA HOSPITAL.

(Specially reported for the Medical and Surgical Reporter.)

Service of Dr. W. H. Parrish.

December 13.

The Management of a Miscarriage.

Dr. Parrish presented to the class a woman who had been brought into the hospital one week before, with the history of a miscarriage. She was a reliable married woman, whose testimony could be believed. She gave the history that she was four months pregnant, when, going about her household duties, she received a blow on her abdomen, which was the exciting cause of the miscarriage. She did not go to bed either before or after the escape of the fœtus; she broke the cord herself, and continued about her household duties for three weeks with the placenta still in the uterus. She was *not* attended by a physician. During this time she had aches and pains, but very little hemorrhage. Three and a half weeks after the miscarriage, the pains became much more severe; there was considerable hemorrhage, and she was obliged to take to her bed, when she was brought into the hospital. After admission, the hemorrhage became so severe that her life was, for a time, in danger. This was controlled by a tampon saturated with Monsel's solution, placed in the vagina—*not introduced into the cervix*—where it was left for two or three days.

When Dr. Parrish saw the patient, her temper-

ature was 102°. Believing that there was something in the uterus, he removed the tampon and found old clots, undergoing decomposition, in the fundus of the vagina. The os uteri was patulous, and upon introducing his finger, he felt something in the uterus, which he concluded to be either placenta or old clots. The patient was then etherized, and while the uterus was pressed down with one hand on the abdomen, two fingers of the other hand were introduced, and the foreign body, which proved to be the placenta, was removed. After this, the uterus was injected with hot water (112°–115°), which temperature could be raised if the patient is etherized. He also used an injection of corrosive sublimate, 1 to 2000. The patient was then put to bed, without any special treatment, for a few hours. Within twenty-four hours the temperature fell to 99°; there has been no pain, no offensive discharge, and the patient is doing well. The lecturer considered that this case teaches us that the placenta at the fourth month can remain in the uterus for some weeks without producing serious symptoms, *but that it will produce serious trouble before it comes away.* He considers it criminal to let the placenta remain until bad symptoms develop, as has been taught by some authors. As an expert, he would call such action *malpractice.* He related the case of a woman where the placenta was left after a miscarriage. Four weeks subsequently, she was seized with severe hemorrhage; but even then her attending physician failed to remove the decomposing placenta. Four days later, Dr. P. was called in consultation; the woman was moribund; the placenta was removed, but the patient died.

The lecturer considers no practice so fallacious as the use of *drugs* for the purpose of emptying the uterus, more especially of a placenta. The weakest portion of this organ is that to which the placenta is usually attached, the strongest being that which includes the contracting fibres of the cervix. Hence when we give ergot, we close up the cervix and incarcerate the placenta; and we also render the introduction of the finger, for purposes of examination, next to impossible. He would not leave the placenta in the uterus more than an hour after a miscarriage.

Puerperal Mania.

Case 2. Woman, aged 38, admitted December 3; had been in labor for 24 hours; two hours later was delivered of a male child weighing eight pounds. This was the third pregnancy; all previous ones normal. There was some hemorrhage (slightly more than normal, but not severe), which ceased when the placenta came away. She seemed heavy, stupid, and disinclined to answer questions. For some days her physical condition was good, but on December 8 her temperature rose to 100½°. There was some abdominal tenderness; no chill. Her bowels were moved and quinine given, with poultices to abdomen. The temperature fell. On the evening of the fifth day she had a convulsion, which yielded to chloroform inhalations. During the night she was given 60 grains of bromide of potassium and 20 grains of chloral. On the sixth day her condition is not improved, and it is noted that she is becoming more violent. Hydrobromate of hyoscyamin was used hypodermically without any appreciable effect. Her urine was found to be alkaline, and there was no albumen. Upon inquiry it was found that a brother of this patient has been an inmate of the insane department of this hospital since 1862. The woman herself had been a respectable married woman, living happily with her husband for some years; the latter had recently died, and she had become this time illegitimately pregnant. She had entered the hospital without the knowledge of her family, and her clouded mental state prevented the gathering of her family history. These facts Dr. P. considers, combined with the history of insanity in her family, would account for the mania. The association of Bright's disease and puerperal mania are rare, mania being notably absent in the puerperal form of this disease. Puerperal mania is not necessarily maniacal in its character, it may be melancholic, but it most commonly shows a tendency at times to maniacal excitement. This woman at times becomes enraged, though she is generally quiet and under the influence of illusions and delusions. In this case the prognosis, so far as mental restoration is concerned, is not favorable, owing to the family history. There is, of course, no danger to physical health nor to life. When there is no inherited taint, these cases usually recover entirely in from two to six months. If the mania partakes of a hypochondriacal nature the prognosis is bad, for these cases rarely get well; they are apt to have strong suicidal tendencies, and must be carefully watched. In the majority of cases, opium is contraindicated, because it increases the quantity of blood in the brain and augments the excitement; even if it does produce sleep, the patients are apt to awaken in a state of greater excitement than before. When there is depression or melancholia, or if there be associated peritonitis or active pelvic inflammation, opium may be administered; but these are the only conditions in which Dr. P. would consider its use justifiable. He much prefers chloral; giving *one full dose* at bedtime, instead of smaller doses repeated. The first night he would give ten grains of chloral and forty grains of bromide of potassium in a single dose at 9 o'clock. If this does not suffice, he would give the next night thirty grains of chloral, but he would never exceed this dose; though if the desired effect is not produced, fifteen grains may be given in four hours. During the day he uses the bromides. In puerperal mania it is always well to look after the kidneys and bowels as well, indeed, as for latent disease all over the body.

Dr. Joseph Neff.

Uræmic Coma.

The lecturer brought before the class a case, not because, as he said, he "knew so much," but because he "knew so little" about its nature, and he desired to make a diagnosis before the class. The patient was a colored girl who had been brought into the house in the ambulance in a comatose state, having been picked up somewhere on the highways. There could be obtained absolutely no history, and Dr. Neff proposed, by a process of exclusion, to endeavor to reach a diagnosis. The first thing noticed is a general muscular twitching, not confined to either side. Sensa-

tion is not lost; indeed, there is rather hyperæsthesia of the surface. The pupils are normal, and respond to light. There is no paralysis of the arms or legs, the mouth is not drawn, there is no ptosis, and reflex action is perfect. If this was a case of *apoplexy*, we would be almost sure to have paralysis somewhere, and stertorous respiration, while muscular tremor would be unusual. It might be a case of *syphilitic gumma* of the brain; but the glands are not enlarged, and there are no suspicious scars on any part of the body. In *hysterical coma* you can bury a needle in any part of the body without response. In *catalepsy* there is rigidity of the muscles, the eyes are usually open, and the limbs remain fixed in whatever position they are placed, no matter how awkward the position may be. The patient's pulse is now 92; it was only 80 when she entered the house. The lungs are free. There is considerable albumen, and Dr. Neff is inclined to call this a case of uræmic coma, though one important point is wanting; in uræmic coma the temperature is generally below normal, while in this case it is 101°. However, he accounts for the high temperature by supposing that the girl must have been very sick for some time (some days at least before her admission), and that the constant muscular twitchings, along with the want of food and care, could produce this elevation. There can be no effusion in or on the brain, for there are no signs of compression.

Treatment.—The bowels must be opened freely. She must be made to sweat by wrapping her in blankets, and surrounding her with bottles of hot water wrapped in cloths wrung out of water. Give pilocarpine hypodermically, $\frac{1}{16}$ to $\frac{1}{4}$ of a grain. When she can swallow, give calomel in small and repeated doses. If she gets worse use croton oil.

Dr. John M. Keating.

December 17.

Cerebral Pneumonia.

Patient, little less than a year old, has been in the house for three months. The parents are apparently healthy, but have already lost three children from some brain trouble. On November 29, the child became restless and cross, with a temperature of 100°. It was given a simple fever mixture. The next day the restlessness increased, and it was rolling its head; but there was no convulsion, no cough, and the eyes were normal. Quinine was ordered by suppository, with mustard foot-baths, and the fever mixture continued.

On December 1, the temperature was 104$\frac{1}{5}$°. General baths were now ordered, and to the other treatment, bromide of potassium was added.

December 2, the temperature was 103$\frac{2}{5}$°; there was vomiting, great restlessness, and hyperæsthesia. Some cough was now noticed for the first time, for which carbonate of ammonia, syrup of ipecac, and paregoric, were ordered.

On December 3, some dullness was noted at the apex of the left lung. The respirations were quick and short, and the pulse very rapid, out of proportion to the temperature. Here, then, we had a case of pneumonia, giving rise to and ushered in by the cerebral symptoms, that would be very apt to mislead the physician. Cerebral pneumonia is usually located at the apex of the lung and confined to one side, and it is often impossible to discover it until consolidation has taken place. The treatment, in addition to that already described, consisted in the use of jacket poultices, then a *cotton* jacket, and quinine by the mouth, in syrup of yerba santa, when the suppositories commenced to irritate the bowels.

In children's practice, we should always study the temperature. When we find it ephemerally elevated, it is of no moment; for any slight cause, such as indigestion, or catarrhal troubles (so common in this abominable climate), or slight restlessness, or, indeed, anything upsetting the nervous system, may run the temperature up to 104°; but when we have it persistently elevated, we know that there is some inflammatory lesion of a more or less serious nature. This is an important point, because parents are apt to worry and get very much frightened when the baby has "fever;" so it is well to bear this distinction in mind.

To reduce high temperature, when due to some lesion, we can employ hot foot-baths and quinine, by suppository, when the stomach is irritable, using always the sulphate. He gives quite large doses, and that persistently; that is, he would give 1, 1½, or even 2 grains every 3, 4, or 5 hours until the temperature is reduced and kept down. We may use a full warm bath, but be careful not to have it too warm, for it does sometimes happen that babies are dropped into water hot enough to scald them. Wrap the child in a blanket, gently lower it into the water, and keep it there for ten or fifteen minutes. We do not want a shock. This warm water will draw the blood into the cutaneous capillaries, where it will be cooled by the subsequent reaction; just as the reaction from cold water will make us warmer. While the child is in the bath we may apply cold to the head. When you suspect that the high temperature is prodromic of a specific fever, the liquor ammonii acetatis is an excellent drug with which to combat it. In cases such as the one described we are very apt to suspect scarlet fever; and the treatment just mentioned will be very appropriate, and will aid materially to bring about the eruption. The medical treatment of high temperature is very simple, but exceedingly important. High temperature, thermic fever, sunstroke, or whatever you may choose to call it, can cause death in a child as well as in an adult. He has never used *cold* water with children, though he has with adults. It is recommended by some authors among children, but he considers it dangerous, and besides does not think it necessary to use very cold water; water *comparatively* cold, that is when the temperature of the body is 104.5°, water at 90°, 80°, or even 70°, while not *absolutely* cold will be *comparatively* so, and will answer every purpose without being dangerous. Parents will oftentimes object to putting a sick child into a bath-tub, considering such a measure harsh. To overcome this scruple, you can place two chairs face to face and lay a blanket over them. Saturate this blanket, and placing the child on it, cover with another blanket; in this way we get constant evaporation. Sometimes the fear of the bath may be allayed if the parents know that it is medicated, when it seems less

harsh; so that we might put a little vinegar in the water.

Diet.—In these cases of high temperature, and particularly in the continued fevers, the digestive juices are nearly absent, and the mucus in the bowels so interferes with their action that ordinary milk cannot be used. Whey is recommended by some, but Dr. K. does not consider it very nourishing. Condensed milk he considers to be a mighty poor food. Pancreatized milk, in his judgment, has solved the much-discussed problem of the artificial feeding of children, for he does not believe that it will ever be possible to find a food more perfectly adapted to the stomachs of children, and indeed he does not think that there is any occasion to ask or look for a more suitable food. To prepare this milk, he operates as follows: In a gill of water he dissolves five grains of extractum pancreatis; to a pint of milk, at a temperature of 110, he adds this solution. The pancreas is first put in water, because it contains a curdling ferment, that is weakened by water. It is not necessary, as some have stated, that the milk and pancreatine should be allowed to stand for some time. The baby's bottle can be filled with milk, put in warm water to raise the temperature, the solution of pancreatine added in proper proportion (the gill to the pint as already stated), and used at once.

DR. H. C. WOOD.

The Hygiene of the Aged.

In order to illustrate his remarks on the care of the aged, Dr. Wood presented to the class two cases, the first one of *senile gangrene* in a man aged 77; the second, *senile dementia*. After eliciting their histories, he sent them out of the room, with the very wise remark that all you can do for these cases is to make them comfortable while life lasts, and he then went on to make a few remarks about how to make such life comfortable, and how to retard as long as possible the downward course of senile decay. He relates the history of an old man, who had come to him ten years ago and told him that while he could not expect to live forever, he yet wanted to live as long as possible, and asked Dr. Wood to endeavor to prolong his life; he undertook the task, and the old man is alive to-day, at eighty-five years of age, the lecturer considering him altogether *too good a patient* to let die. Dr. Wood tells us that very many old men die of exposure, which after all is but a relative term, since a young robust man may wade half a day in the water for partridges, or lie out in the biting cold in a sink for ducks, and it will not constitute exposure; whereas the draught from an open door may mean fatal exposure to the waning energies of an old man. Dr. Wood believes that every person 75 years old, or less, if their vital powers are failing, should wear a *buckskin* jacket, which he very much prefers to flannel or silk. He thinks that nothing will compare to it to prevent the little chilling of the surface, which means a dangerous internal congestion in the aged. Old persons should spend many hours in bed. Their food should be light, but nutritious, using meat sparingly, and relying chiefly upon milk, as they did at the other end of their journey through life. Especially must they guard against exposure to high winds, for this cause can claim its ten thousand victims among the aged, when dampness and its results must be satisfied with one thousand. Especially are high winds to be avoided when the body is heated. Dr. Wood quoted the case of the late Rev. Dr. Beadle, who, coming out from his warm church on a windy day, had hardly walked a square when he was seized with great oppression about the chest, and died very shortly from congestion of the lungs. Alcohol and opium are useful agents to prolong the life of the aged; if you can make your ancient patient an opium-eater you will prolong his life; but you must order the opium carefully, and it is just as well not to let him know what he is taking. Dr. Wood has a patient who has been taking opium suppositories at night for ten years, commencing with one grain; they now contain two and a half grains, and he takes a little morphia through the day. Every old man ought to take some form of alcohol at meal time; by studying the digestive processes we can determine what form will be the best. It is very essential to stop any acute attacks in old persons, and in five cases out of six this can be accomplished by putting them to bed and using opium.

MEDICAL SOCIETIES.

PHILADELPHIA NEUROLOGICAL SOCIETY.

Discussion on Epilepsy. (*See page* 104.)

The discussion was opened by Dr. E. T. Reichert. He said that the efficacy of the bromides was certainly not due to the bromine, for bromide of potassium is the best of the bromides, and it contains less bromine than any of the others. The amount of bromine in the chief bromides, as given by Gowers, is as follows:

Bromide of ammonium	81 per cent.
Bromide of potassium	67 per cent.
Bromide of sodium	77 per cent.
Bromide of lithium	92 per cent.

All the bromides act alike, but with varying degrees of efficiency. The bromates, nitrites, etc., are not as useful as the bromides. A certain line of similar chemical salts seem to give uniform physiological and therapeutical results.

Dr. Guy Hinsdale said that, in regard to the cases in which Dr. Mills used the nitrite of potassium, some four years ago, one was benefited, some remained the same, while others were apparently made worse by its use.

Dr. Wharton Sinkler wished to know if any of the members of the society had used hyoscyamus, and with what results. He said that Althaus, of London, reported cases in which tincture of hyoscyamus had been used successfully, in doses of from one, two, or three drachms. He said that he had reported one case of epilepsy which had been greatly benefited by cannabis indica, after the bromides and other remedies had failed.

Dr. H. M. Wetherill said that, in his experience, the bromide of potassium was the best remedy. He said he had never tried the tincture of hyoscyamus. He had never seen a case of epilepsy entirely recover.

Dr. F. Dercum said that his experience was

summed up in the statement that he had found the bromides the best.

Dr. Morris Lewis spoke of the cure of a child, three years old, at the Episcopal Hospital, in which he could obtain no results with the bromide of potassium. The seizures continued, and were worse, if anything. He then resorted to bromide of ammonium, and with immediate good results.

Dr. J. H. Lloyd said he thought that in cases of epilepsy attention to the digestive functions and to sleep were highly important. He called attention to the observation of Dr. Radcliffe, that epileptics have a tendency to over-eat and to sleep too much. In his own experience he had found that when constipation was present the seizures were likely to be more frequent and severe. Dr. Radcliffe and other English physiologists seemed to prefer comparatively small doses of the bromides long continued. Dr. Lloyd believed the combination of three bromides with the iodide of potassium to be one of the best in the treatment of epilepsy.

Dr. A. J. Parker said he believed we could not say that the effect of a drug like bromide of potassium, bromide of sodium, etc., was due either to the bromine, or potassium, or the sodium, etc. Each of these salts is an individual drug, each molecule of which has its own form of motion. Bromine is a substance with its own peculiar molecular condition of motion. Potassium, similarly, has its own motion. Bromide of potassium is the resultant of the two motions. Certain members of the same chemical families, as the bromides, iodides, and chlorides, would seem to go together in therapeutical efficacy, due to similarity of their forms of molecular motion. At any time, we may expect, however, to find wide differences, since our chemical equations simply represent an idea of structure, and tell us nothing concerning the form of molecular movement; and therapeutic effects must certainly depend more on the energy and form of motion than upon any other qualities.

Dr. E. T. Reichert made a few remarks on the use of *Hydrobromic Acid and the Bromides in Sea-sickness.*

He said, while crossing the ocean, he had the opportunity of studying the effect of hydrobromic acid and some of the bromides in sea-sickness. Hydrobromic acid was effectual, but had to be used in such large doses that, owing to the dilution with water necessary, the bulk to be taken was excessive. The bromides were, therefore, he thought, to be preferred. Bromide of sodium, in large doses, was effectual in one bad case. He believed that all the bromides were good.

Dr. J. M. Taylor spoke of the use of *Nitrite of Potassium in Angina Pectoris.*

In an aggravated case of angina pectoris, he had obtained very good results with nitrite of potassium. The patient had been suffering for over a year with paroxysms of increasing intensity, until death seemed imminent. After giving the nitrite of potassium for four weeks, the patient recovered. Nitrite of amyl was used sparingly to control the paroxysms.

Lewis Brinton, M. D., *Recorder.*
1701 *Race street.*

Editorial Department.

Periscope.

The Mullein Plant in Pretubercular and Advanced Phthisis Pulmonalis.

Dr. F. J. B. Quinlan, who has been advocating this drug for some time, read a paper on the subject before the last International Medical Congress, which we reproduce from the *Dublin Jour. Med. Science*, September 1, 1884:

In the collection of ancient Irish manuscripts contained in the library of the Royal Irish Academy are several medical treatises in which the mullein plant is strongly recommended in pulmonary disease. In fact, the first word of its Celtic name, *cumeal mhuipe*, means "good for pulmonary complaints." From time immemorial the Irish peasantry have regarded this plant as an unfailing cure for consumption; and thus it is that an herb, which in England, France, and German is a mere wild weed, is in Ireland carefully cultivated on a very large scale. It is in constant demand, it is advertised in all the journals, and, in fact, forms an article of ordinary commerce. There are five mulleins, all belonging to the natural order of scrofulariaceæ; but the one in question is the verbascum thapsus, or great mullein, which is known in France as the *molène bouillon blanc*, and in Germany as the *kleinblumiges wollkraut*. It is a hardy biennial plant, with a strong stalk from half a metre to two metres high, with thick woolly and mucilaginous leaves, and a long flower spike with numerous yellow flowers, the smell of which is not disagreeable. The best results are obtained with the green leaves, which can be procured during seven or eight months of the year; but excellent effects are produced by the dried leaves also. By cultivation under glass the mullein can be had fresh during the winter; and this is important, as will presently be seen.

The method employed by the Irish peasantry is to take one hundred grammes of the fresh green leaves (or about thirty of the dried) and place them in rather more than one litre of fresh cow-milk. This is brought to a boil, and allowed to stand for ten minutes. The hot fluid is then filtered, is slightly sweetened, and is drank while warm. This whole quantity is taken twice or, in some cases, three times a day. It has a soothing pectoral effect, and, after a little time, is much liked by the patient.

Although in such popular repute, and in such extensive use, the mullein is not in the pharmacopœia, nor was it regularly recognized by the medical profession. It appeared to me that it would be well that the matter should be properly

investigated, and accordingly, during the last two years, I have treated a series of cases of pulmonary consumption in all its stages—127 in number—with the mullein leaf solely, with one trifling exception, which I shall presently notice. This procedure gave the most unbounded satisfaction to the patients, who implicitly believed in the remedy, and co-operated zealously with me in its use. Previous to commencing treatment each patient was carefully weighed, and this weighing was repeated every week, with great attention to uniformity of conditions as to time, clothing, meals, etc. The symptoms and physical signs of each patient were accurately noted, and the results tabulated. The conclusions to which I have arrived are as follows:

1. In the early and pretubercular stage of pulmonary consumption mullein has a weight-increasing and curative power greater than that of cod-liver oil, and nearly equal to that of Russian koumiss. It has been experimentally proved that this is due to the mullein, inasmuch as the milk alone fails to accomplish the same results.

2. In cases in which tubercles are well established, or cavities exist, the mullein has a great power in relieving cough. In fact, such a patient taking it requires no mixture at all, and every practical physician will recognize the great boon which this power confers on the phthisical sufferers, whose stomachs are often hardly able to receive sufficient alimentary sustenance. Indeed, the mullein milk is looked on by them more as a food than as a medicine. In persons of very feeble digestion, heaviness is often experienced after so much milk. This, however, can be completely relieved by allowing the boiled mullein milk to cool down to 50° C., and adding a teaspoonful of Benger's pancreatic fluid. It should then be left under cover for ten minutes.

3. Phthisical diarrhœa is completely obviated by the mullein. This is, no doubt, aided by the milk, but also occurs when the mullein is prepared with water.

4. All the symptoms of pulmonary consumption can be combated by the mullein, except colliquative perspirations—over them mullein has no influence; and in my cases I principally employed the hypodermic injection of the atropia sulphate. This is the exception to the sole mullein treatment to which I have already alluded.

5. Mullein smoke applied directly to the respiratory passages has a great effect in relieving irritation and spasmodic coughs, and coughs in general. The dried leaves of the mullein are broken up fine, and are smoked in an ordinary pipe, either pure or mixed with a little tobacco to flavor them. Wheeler and Whitaker, of High-street, Belfast (Ireland),[prepare very elegant cigarettes for this purpose. These are of two kinds: (1) mullein, flavored with a little Turkish tobacco; (2) for those to whom tobacco is disagreeable, mullein, flavored with a little oil of cascarilla.

I now exhibit both varieties of these cigarettes, as well as specimens of the mullein plant.

Koumiss can be had only where the mare is a regular milch animal; because, for chemical reasons, the milk of the cow does not make proper koumiss. Cod-liver oil is very disagreeable to take, and the quantity which is taken in all civilized countries, notwithstanding the wry faces generally made while taking it, by patients of all nationalities, is the surest testimony of its merit. It is, in my opinion, inferior to the mullein milk as a weight-increaser. It does not arrest cough, and it often does the contrary of arresting phthisical diarrhœa. Lastly, it disgusts the feeble stomach very much—to such an extent that many patients are entirely unable to take it. In the whole course of my experiments I met no patient who could not take the mullein, and scarcely any who disliked it.

I will conclude this paper with two typical cases of the cure of two patients who were suffering from early but undoubted pulmonary consumption. Both these patients are now alive, and in robust health, and I visited both just before leaving Dublin.

Case 1. Helen S., aged twenty, single, a governess, residing in Dorset street, Dublin, suffered 18 months previous to her admission into St. Vincent's Hospital, from inflammation of the left lung. Her health fell away, she coughed, became emaciated, and the catamenia ceased. She had slight dullness over the apex of the left lung, and auscultatory phthisical signs. She weighed 110 English pounds. In five weeks she increased to 119 English pounds, all symptoms disappeared, and the catamenia returned during the treatment.

Case 2. Elizabeth B., aged eighteen, single, a dressmaker, residing in Gloucester street, Dublin, had been ailing for four months. She coughed, and once had slight hæmoptysis. She lost flesh, and the catamenia ceased. On admission into St. Vincent's Hospital, I detected slight dullness over the right clavicle, and stethoscopic evidences of early consumption. She weighed 90.25 English pounds. Soon after beginning the mullein treatment, the catamenia returned, and after six weeks of it she had increased to 102.75 English pounds, with evident recovery. She was now sent to our convalescent department in the country, when I directed her to get cod-liver oil and discontinue the mullein. For thirty-three days she took a tablespoonful of cod-liver oil twice and sometimes thrice daily, and increased 7.50 English pounds only. This was the more remarkable, as, while taking the cod-liver oil, she had the aid of fresh air, sufficient exercise, and an abundant diet, of which she took ample advantage.

The above two cases are typical of about fifty instances of early consumption in which complete cures were effected. It is worthy of remark that very young mullein leaves have a dangerous resemblance to young foxglove—so much so that I have known an experienced gardener to put a young plant of the latter into a mullein bed. Of course, as soon as the poisonous intruder grew a little he was detected and expelled. Full, or even half-grown mullein and digitalis are not the least like each other. Dr. Ernest Knowling, of Tenby, South Wales, England, reported to me a case where belladonna leaves got accidentally mixed with mullein, and produced serious but, happily, not fatal results. I saw myself the leaves and flowers of the belladonna which had been picked out of that parcel, and they were further identified by Mr. Holmes, Botanist to the Pharmaceutical Society of Great Britain. We investigated this case, and found that the mistake

arose from the highly reprehensible practice which prevails, even in some most respectable drug-stores, of allowing dried poisonous leaves to be lying about in the same loft with non-poisonous ones. No person, however inexperienced, could mistake fresh belladonna for fresh mullein; but when leaves are dried and curled up it requires an expert to distinguish many which, when green, are quite unlike. The above are the only troubles which have come to my knowledge connected with the use of a valuable remedy of which I solicit the consideration of this Congress. I feel that I lay myself open to much criticism in coming forward here to announce a specific even for early and pretubercular phthisis; for I am aware that many think but little either of cod-liver oil or koumiss.

The power of the mullein is soothing the downward path of the advanced sufferer is of lesser consequence; for, did it not exist, there are many other ways of accomplishing the same object. My only apology for the position I take is this—a high standard of ancient native culture perished in Ireland amid a sea of national woe; and, from my boyhood, I have seen the humbler classes of a whole nation cultivating, believing in, using, and paying for a remedy which elsewhere was, in modern times, regarded as a mere weed. It appeared to me that a whole nation using a remedy for centuries, and, no doubt, judging it by results, could not be wholly wrong. I approached the subject without any preconceived opinion, and had the result of my research been unfavorable, and the opposite of what it was, I had determined to announce it as such. All that I ask for this remedy from my esteemed colleagues here is to try it in a similar spirit, and I have no expectation of their taking any other course.

The History of Blood-letting.

In the *Med. Press*, Dec. 3, 1884, Mr. Brinton briefly sketches the history of blood-letting as follows:

"The first recorded case was one which occurred at the close of the Trojan war, and is referred to in the works of one Stephanus, of Byzantium. The origin of the practice was attributed by Pliny to the Hippopotamus on the Nile. The words of the translation of Philemon Holland (A. D. 1601) were given in their entirety. A short account of some of the views of Galen on the subject was given, and it was shown what opposition his views on the subject of blood-letting called forth, chiefly from the blind followers of Epasistratus, who preceded him by about 400 years. The change of practice which has recently taken place was shown to be due—1. To the discovery of chloroform, which, in many surgical cases, does that which before could only have been accomplished by copious depletion; 2. To a more inquiring mind, which began by trying the experiment of watching the natural history of those diseases which previously had been treated by bleeding according to tradition. The author disclaimed any such excuse for its discontinuance as that occasionally brought forward, viz., change of type of disease as well as of mankind. He would discuss blood-letting chiefly in respect of the treatment of uræmic, puerperal, and epileptic convulsions, apoplexy, bronchitis, dilatation of the right heart from valvular diseases, pneumonia, and thoracic aneurism. The utility of the practice in most of these diseases was illustrated by cases. With regard to uræmia, cases showed that blood-letting had a marked action in reducing the amount of albumen present in the urine. In one case the total amounts of albumen in the urine, of two periods of twelve hours, immediately before and immediately after venesection, were 75 and 30 grains respectively. Recorded cases also showed that it was often called for and successfully practiced in puerperal eclampsia. Two cases were brought forward illustrating this. In apoplexy it might be called for during the period of reaction, never before; the guide to the condition of the artery in the brain being the state of tension of the pulse of the wrist. Any lowering of tension of the arterial system might allow the formation of a clot in the ruptured artery and check the increase in amount of the effused blood. Allowing that in apoplexy there was cerebral anæmia, the only effect which a rapidly-increasing effusion of blood would have, must be increasing strangulation of the circulation of the parts near it, and limiting the effusion would tend to prevent increase of strangulation. In diseases of the valves of the heart leading to a dilated right ventricle, general bleeding, when other remedies had been tried and failed, was of signal service. In these cases the effect was simply mechanical, and an irregular and empty pulse was the indication for blood-letting. This application of blood-letting was quite in antagonism to older teaching, inasmuch as formerly it was practiced when there was an 'inflammatory' pulse, mainly with the object of limiting the inflammatory process. In some cases of pneumonia, when, about the time of the crisis, there were signs of a failing heart, blood-letting should be cautiously tried, as in cases of this kind the cause of the failure is obstruction between the right and left sides of the heart, leading to an impossibility of the right side drawing enough blood to fill the arterial system. Bleeding in bronchitis with the same object, viz., that of relieving the right side of the heart, was often necessary, and should be done without regard to the tumultuous and irregular action of the heart, as this was due to the causes mentioned above. In the treatment of thoracic aneurism, bleeding has undoubtedly prolonged life. A case was quoted in which a man had an aneurismal swelling on the front of the chest, absorbing the costal cartilages and ribs for fifteen years; he died at the age of sixty-five, having been bled over 160 times. With regard to local blood-letting by leeches, the indication for its use was pain, such as the pain in a dry pleurisy or in cases of perityphilitis. In conclusion, the precautions necessary in the operation were briefly mentioned, and it was pointed out that in many cases in which bleeding was necessary, the cutaneous veins of the arm were impracticable, owing to deficient circulation through the limb. In these cases the external jugular was always available."

An Unusually Severe Case of Syphilis Acquired Without Any Primary Sore.

The following unusual case is reported in the

Lancet, December 13, 1884, by Dr. Stenson Hooker:

"The subject of the case, whom I will call A. B——, is a medical man, aged thirty, practicing in a small country town where cases of acquired syphilis are anything but common.

"A. B—— has always led a strictly sober and chaste life. He was in his usual health in February last, when a gentleman's servant presented himself at the surgery to be treated for a thin, watery discharge from the urethra and nocturnal emissions. There was a very insignificent sore under the glans penis, so small indeed that it could only be called an excoriation. A. B—— examined this carefully, and resolved to leave it to take care of itself, the result being that it healed up in a fortnight. The other symptoms were treated, but not syphilitically, and the patient so far improved that towards the end of the month he ceased to attend. In about seven weeks after this, A. B—— began to suffer from very severe frontal headache, both night and day, but worse at night. This increased in severity, and soon partook of a constant stabbing, lancinating character. It was thought that he needed rest and change. No idea of the real nature of the case was yet suspected. Had he had a scratch on the finger, to say nothing of a sore, the true cause of the pain would probably have been divined: but he emphatically avers (and the averment may be implicitly relied upon) that for some years past he has not had any lesion of the skin in any part of the body, and has run no chance of being syphilitically infected, excepting by the servant mentioned above. He now went to the seaside, and a few days afterwards general periostitis of the skull set in, and was so aggravated that the whole head was a mass of nodes of the size of walnuts, the pain being most excruciating. At this time he was closely questioned by a medical friend as to any possible way whereby his system might have been poisoned with syphilitic virus; but after what has been said I need scarcely add that the malady could not be traced to a primary sore. General cervical cellulitis appeared next, with great enlargement of the post-cervical glands; there was now also (about six weeks after the commencement of the headaches) a lichenous rash which covered in a uniform mass the whole of the trunk and extremities; simultaneously with this the tonsils were badly ulcerated, and it was not till then that A. B—— could be got to acknowledge that he was suffering from any of the symptoms of that protean disease, syphilis. Iodide of potassium was now taken vigorously, and the pain gradually abated. He was at this time returning to his work, and on his way consulted in London one of the greatest authorities on this particular disease, the throat being still ulcerated, and the rash only beginning to fade. This gentleman told him that there was not the slightest doubt as to the nature of the malady, and carefully examined him for evidence as to primary sore, but none, of course, could be detected. Mercury-with-chalk pills were ordered, and under this treatment the throat rapidly improved and the rash disappeared by desquamation; but for the next twelve months A. B—— suffered from deep fissures and recurrent ulcerations of the tongue, with congestion of the ciliary vessels of the eye, and loss of hair.

"Now, I can most conscientiously aver that this medical man presented himself as a sad example of one in whom, in spite of all his symptoms, there had never been any primary affection; through what particular channel the poison was absorbed is still, and must, as far as I can see, remain a complete mystery; that he never had a chancre I can again most positively aver. A. B——'s patient, it should be said, returned for treatment, this time suffering from the same unmistakable syphilitic symptoms."

Caseous Pneumonia of the Entire Lung.

Before the Pathological Society of London (November 4, 1884), Drs. Lanchester and Hobson showed the lung and microscopical sections from this case. The patient died seventeen weeks after an acute attack of chest disease. The symptoms and physical signs were those of an empyema of the left side, including marked bulging and displacement of the heart to the right. Upon this diagnosis the chest was punctured in several places, and also incised, but with negative result. A drainage-tube was, however, inserted in the wound, which continued to discharge sero-pus to the end. A spontaneous opening formed subsequently at the seat of one of the punctures in the axilla, and purulent fluid continuously drained through this. The surgical treatment was strictly antiseptic. A few days before death, symptoms of tubercular meningitis came on. After death there was found to be no pleuritic effusion, but the whole of the left lung was solid, distended, and filled with dry, caseous material, which, however, had softened down and left a cavity in the superficial parts of the upper lobe corresponding to the axillary opening. The artificial opening simply led into a blind channel in the lower lobe. The right lung was studded with miliary tubercles. There were also tubercles in the liver, which was fatty, in the kidneys and spleen. There were tubercular ulcers in the small intestines. The microscopical appearances in the affected lung showed thickening of pleura, a decided but not uniform increase of the alveolar walls, and the alveoli stuffed with inflammatory products in which epithelial elements could only occasionally be traced. As far as the experience of the authors went, this case was unique. The sign which of all others was regarded by writers as diagnostic of *effusion* as distinct from *pneumonia*, viz., displacement of the heart and bulging of the chest walls, was present. The uniform consolidation and caseation of the entire lung, with an absence of a similar process on the opposite side, was also remarkable. The only cases which seemed at all parallel were those which have been described by Virchow, Wagner, and others, as syphilitic pneumonia in infants. The possibility of syphilis in their case seemed out of the question.

Dr. Goodhart had seen a similar case. It was mistaken for empyema and tapped. The whole of the left lung was converted into a solid mass, and there were tubercles. The disease was not rare in partial form; a solid cheesy mass was not uncommon in middle lobe of right lung. It cer-

tainly was not syphilitic; perhaps it was a diffused lympho-sarcoma.

Dr. Duckworth said that clinically and pathologically such cases were rare. Caseous invasion from the bronchial glands was not uncommon, but in this case the disease enlarged the lung and the chest wall. The clinical history was one of tuberculosis, he thought, a good account of the microscopical appearances.

Dr. Percy Kidd thought he had seen several similar cases; the question of tuberculosis might be settled by an examination for bacilli.

Mr. Butlin recalled two or three cases tapped without result, in which the lung was solid.

Dr. Angel Money had seen two cases.

Dr. West said that a mistake between solid lung and empyema was almost unavoidable. His idea was that the tubes were occluded by secretion, or they might be pressed upon by new growth, and the consolidation be thus produced. He thought that the naked eye appearances were those of sarcoma.

Dr. Lanchester said that they could exclude syphilis. The bulging and displacement of the heart was most unusual. The structure was very hard; notwithstanding the treatment, the lung did not break down, which was unlike caseous pneumonia.

Agoraphobia.

Dr. R. Prosser White thus writes in the *Lancet*, December 27, 1884:

In the wide field of scientific medicine, research and demonstration are gradually hemming in and contracting the circle of functional disorders, and the onus of causation is placed upon some unsubstantial coccus or some undefined catalytic action. Functional disorders, however, do exist, and are perhaps increasing, as is proved by the frequent usage of words expressing derangements without inflammation, or constant structural change, such as neurosis, neurasthenia, hysteria, hypochondriasis, etc., to which category this curious phase of nervous phenomenon, I think, belongs.

B. C., aged about thirty, a professional gentleman, of active intellectual habits, whose previous health was good, and whose family history shows no predisposition to nervous disorders, complains that for the last five or six years he has suffered from a nervous kind of light-headedness, gradually becoming more marked and troublesome. The attacks occur about twice a week, and are brought on by the ideas of space, vastness, height, depth, eternity, or such kindred subjects; and these ideas, however conveyed to the brain, such as the viewing of a large building, or vast area, or in conversation, the description of a voyage, even thoughts of the infinite power of God, or a feeling of loneliness—all and each are able to produce upon him an acute attack which shows itself by pallor of face, a peculiar oppression at the back of the head, palpitation, large drops of perspiration upon the forehead, and a feeling of great dread and exhaustion, and sometimes, as he describes it, a feeling of impending madness. The general condition shows slight tendency to stoutness, with anæmia; the lungs, heart, and kidneys are practically sound. He suffers very much occasionally from bilious attacks, as he calls them, but otherwise is not troubled with headaches, tinnitus, deafness, or any stomach derangement. After an attack he feels sleepy and heavy, and sometimes passes a large quantity of urine; he says he feels nervous, and dreads the onset of another attack. He is occasionally troubled with spermatorrhœa, and reflexes of all kind are very sensitive.

These feelings and attacks may sometimes be avoided or lessened in severity by moral determination; deep concentration of thought will enable him to cross an open space or certain places which otherwise induce these attacks of dread; companionship relieves the feeling of loneliness and fear produced by the thought of taking a holiday in a part of the country new to him. The presence of a cart, even a stick or umbrella in the hand, persons, or trees, gives a sense of confidence when walking an unknown road. Cheerful and lively conversation, with a congenial companion, will always ward off the attacks.

This case is, I think, a typical example of that described in 1870 by Benedikt and in 1872 by Westphal, under the term "agoraphobia," and is, I venture to think, a not uncommon form of nervousness, though exceptional in its extreme forms; it is an essentially neurotic, as distinguished from a hysterical, affection.* It is rarely described in text-books. Quain's *Dictionary of Medicine* gives only a short article, written by Dr. Fred. Roberts, who does not think the complaint idiopathic, but says "it is sequential to some other condition." What that other condition is he does not say. Dr. Maschede is mentioned as describing a case of clithrophobia† in a young man who exhibited giddiness and oppression whenever he entered a small room or narrow space, and was obliged to camp out in the open fields and woods, and only in the depth of winter could he be prevailed upon to sleep in a large and airy apartment with all the windows open. Dr. Maschede also mentions two other similar cases. The author thinks that agoraphobia and clithrophobia ought to be classed under the same head, as in both cases the characteristic symptom is that the patient cannot by any means form an accurate conception of his surroundings.

Dr. Grainger Stewart, in a recent lecture upon "giddiness," thinks that these cases are closely allied to ordinary giddiness produced by what he calls and describes as "contradictariness of sensory impressions." "Normal equilibrium is the resultant of normal customary external impressions, and the symptoms of agoraphobia are produced by the absence or clashing of one or more of these impressions." This explanation seems to me hardly satisfactory, as my patient insists very strongly that there is a distinct difference between the giddiness associated with his bilious attacks and the giddiness which accompanies his agoraphobic attacks; again, companionship can hardly affect a man's appreciation of vertical lines, by which Dr. Stewart thinks the patients guide themselves, and also we find that the mental ideas of infinity, vastness, etc., are just as potent to produce the attacks as are external impressions.

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*Gulstonian Lectures, by Clifford Allbutt, March 4.

†British Medical Journal, May, 1879.

To me the case seems essentially a form of mental depression in certain faculties, unassociated with delusion and closely allied to what is called simple melancholia. There are disorders of perception, bright light, loud noises, likes and dislikes to persons and things are more pronounced and uncalled for; there is increased irritability to all external impressions, and these are accompanied with some form of deteriorated physical health; but I think the seat of this condition is certainly central, not peripheral. May it not be due to some functional irritation of the cerebral cortical sensory centres, which Ferrier calls the anatomical substrata of ideation?

The prognosis in this case is good, and he has always improved and recovered from his nervousness with the recovery of his usual good general health.

Treatment has been with the object of improving the general health by small doses of cod-liver oil, attention to diet, and the avoidance of such associations as aggravate the disorder. Great relief has been found from wearing a pair of dark-purple spectacles, especially upon bright days. The recumbent position, bathing the head with cold water, or a small dose of some stimulant, will often ward off an attack for some time. The peculiar pain in the back of the head is best relieved by pressure of the hands. A dose of bromide of potassium and strychnia will enable him to mount a hill or do some work which he could not have accomplished and would have shrunk from without it, and he finds he requires a quarter of an hour before the medicine acts. Other medicine he takes from which he is confident he receives benefit—namely, nux vomica, iron, and hydrobromic acid.

The Value of Condensed Milk.

Mr. T. Maben says in the *Druggists' Circular:*

Condensed milk is more digestible than ordinary cow's milk—a fact which is admitted even by those who say it should not be used. It is less liable to turn sour in the bottle, and how great a boon this is, is known only to those who have to do with feeding-bottles. It is less liable to decompose in the stomach. A medical friend informs me that he frequently finds that children fed on cow's milk are troubled with flatulency, diarrhœa, green stools, and want of health generally, and that, on changing the food to condensed milk, these symptoms at once disappear, and a most healthy condition of the body is induced. Condensed milk is less liable to vary in composition, and more likely to be pure. It is well known that the quality of the cow's milk varies with the food supplied to the cow, and in these days it is often the main object to have quantity, quality is frequently at a discount. Besides this, the change of a cow, the introduction of a new cow into the dairy, the use of milk before it is quite free from the colostrum—all these have often been accompanied with dangerous results. Now this cannot happen with condensed milk. It is in the interest of dairymen themselves to use the richest milk for condensing purposes; the cows are fed on nature's food, whether in the green Swiss valleys or the Norwegian *dals*, or "in the pastures of the far-famed Acadia of Longfellow's 'Evangeline,'" as one advertisement sets forth in poetic language; and, if due care is taken to mix and properly condense and preserve the milk, the chances of variation or impurity are indeed few and far between. The conclusion, therefore, to which I arrive is that, when mother's milk is not available, a good sweetened condensed milk is the best substitute; and though it is not by any means a model food, it is not quite so unsatisfactory as some authorities would have us believe.

The Manufacture of Oxygen.

The production of oxygen direct from the air has long been aimed at by chemists. It would appear, from a communication made to *La Nature* by Messrs. Brin frères, that this purpose has been successfully accomplished. They have erected a plant which produces 100 cubic metres per day—a quantity which is far beyond merely laboratory experiments. Their process is based on the property possessed by caustic barytes of absorbing oxygen. A series of retorts is fixed in a furnace, and caustic barytes is inserted in each retort. A force-pump and a suction-pump are connected with each retort, and at a temperature of between 500° to 600° C. air is pumped into the retorts. The air has previously been in a chamber containing lime and caustic soda, to free it from carbonic acid gas. At the temperature named, the barytes absorbs oxygen. At about 800° the resulting peroxide is deoxidized, and, by means of the suction-pump, the oxygen is drawn off. By this process a perfectly pure gas can be obtained in unlimited quantities. The oxidation and deoxidation of the barytes can be repeated indefinitely.

Of course it produces nitrogen as well as oxygen, and the authors believe the manufacture of ammonia by direct combination with hydrogen will be possible.

The applications of oxygen are likely to be very numerous. The authors think it will be found superior to carbonic-acid gas in aërated beverages. For all antiseptic purposes oxygen is of great value, and it is likely to be extensively employed in metallurgical processes, as in its medium elevated temperatures are more readily obtained than in the atmosphere.

Reviews and Book Notices.

BOOK NOTICES.

Lecons de Clinique Chirurgicale. Par le Dr. Charles Monod. 8vo., pp. 127. A Delahaye, Paris, 1884.

In a series of half a dozen clinical lectures, Dr. Monod treats of cancer and tuberculosis of the testicle, of cancer of the breast and pleural fistula, of hare-lip and perforating diseases of the foot. His teaching is clinical, amply illustrated by cases, and delivered in that pointed, incisive manner for which the French have such aptitude. Any one who is in search of further information on the topics we have named will do well to order this book.

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THE COLLECTIVE INVESTIGATION OF DISEASE.

The plan of uniting a large number of persons at one time in the investigation of disease is becoming more popular as its results are better known. Having definite questions to answer, the attention of observers is fixed on those points which are more obscure. There are difficulties in the way of estimating the results of these observations, more serious than those obtained in hospitals, for obvious reasons; but on the other hand, they are in certain respects more valuable than hospital statistics. These latter deal principally with the broken-down population of large cities, while the "collective investigation" plan deals with the actual patients of the practitioners.

The Pennsylvania State Medical Society appointed a committee to prepare cards and forms for such investigation, and the committee has recently sent such cards to members of the society. They are upon acute pneumonia, chorea, and acute rheumatism, each one of which it is requested that the member will fill up from a case in his own experience. The questions are for the most part arranged so that they can be answered by simple erasures, thus involving the minimum amount of time and trouble on the part of the observer. The cards thus filled must be returned not later than the first day of April, 1885, when the committee will begin to prepare the reports which it intends to make to the society at its annual meeting in May, 1885; but it is of course desirable that the cards should be returned as soon as the observations are completed, as the making of the reports involves much labor.

In preparing the cards, the committee has intentionally adopted precisely the same form and color for each disease, as the Collective Investigation Committee of the British Medical Association, because it is evident that if any advantage is to accrue from an international investigation, it must largely depend upon a uniformity of method. It would have been easy to modify the English cards and thus give an appearance of greater originality; but as there was no especial merit in such course, and the advantages of uniformity

were secured by leaving them unchanged,' this was done.

The chairman of the committee is Dr. James Tyson, 1506 Spruce street, Philadelphia, who is prepared to furnish the forms to those who will take an interest in filling them up.

We recommend to our readers in this State to send in such reports, and those in other States may think it worth while to obtain specimens of the forms used so that they may be extended as widely as possible. In this way the maximum benefit from such a scheme will be obtained.

THE LUNACY LAWS.

The Rhinelander lunacy case has attracted considerable attention in New York, and is of some interest as showing the new mode of procedure in the trial of criminal cases in that State, when there is an allegation of insanity.

The old mode of trying the issue at the same time that the guilt of the prisoner is determined, is not a satisfactory or practical way of securing justice, and it is now done away with. The rule now is, to settle the question of insanity before the prisoner is called upon to plead, and at a time when it will not be complicated by other issues. In the Rhinelander case the plan worked well, and the result is mainly of interest as throwing some discredit upon expert evidence.

Recorder Smyth, of the Court of General Sessions, before whom Rhinelander was brought, appointed a commission to take testimony on the question of insanity and report. This commission prosecuted its duties for several weeks during the summer, and amassed an immense amount of evidence from experts and non-experts, with the result that the majority of the commission reported that Rhinelander was insane. A minority report was also presented to the opposite effect. These two reports were carefully considered by the Recorder, and in an elaborate opinion recently rendered, he adopted that of the minority. He caustically said that the expert evidence was practically of no value. That the physicians were directly opposed to one another on the question of insanity, and that those who testified in favor of insanity were totally opposed to each other as to the grade of nervous disease suffered by the prisoner. There has not been so cutting a commentary on the existing system of expert evidence in a long time, and it is not unlikely that public opinion will ere long require some change, such as that of calling the experts at the instance of the court itself, and not as witnesses for a particular side. Until something like this is done a physician can never be entirely free from bias.

PAY OF NURSES IN HOSPITALS.

The question of compensation for nurses and those employed in hospitals in caring for the sick, is a matter of some importance, and the courts are frequently called upon to determine the responsibility for such compensation.

In a recent case in Michigan it appeared that the charter of a city required the common council to take proper measures for the preservation of the public health, and at the same time a statute declares that patients of pecuniary responsibility shall pay for the services rendered them by the hospital nurses.

The suit in this case was brought against the city authorities by the nurse, and the court held that the suit was a proper one, notwithstanding the statute making the individual liable, and ordered judgment.

The opinion of the court is in part as follows: "The duty to guard the public health and prevent the spread of contagion was imperative, and the power of the common council was commensurate with the duty. Neither the power nor the obligation could be lessened by the failure to designate a sub-agency. * * * In providing that what is done shall be at the charge of individuals, it is not intended to exempt the public from immediate liability. It would be impossible under such a regulation to effectuate the general object.

"Individuals would not be willing to provide necessaries, and serve as nurses and assistants at the instance of the public, if compelled to collect their pay of the patients or their relatives.

"The public is first and immediately responsi-

ble, and the intent of the statute is to enable the public to obtain reimbursement from those who ought to sustain the expense."

Notes and Comments.

Huchard on Antipyrin.

Dr. Huchard terminates a lecture on the therapeutics of the new antipyretic antipyrin, which he delivered at the Hôpital Bichat (*Union Médicale*, November 29 and December 6), with these conclusions:

1. Antipyrin constitutes a powerful and certain means of lowering the temperature in almost all febrile diseases, as typhoid fever, pulmonary phthisis, pneumonia, pleurisy, acute articular rheumatism and cerebral rheumatism, angio-cholitis, erysipelas, diphtheria, puerperal fever, scarlatina, phlegmon, abscess, etc. It mitigates the symptoms which are due to the pyrexia, acceleration of the pulse and respiration, dryness of the mouth, etc., but it does not seem to possess any *direct* action on the respiration and circulation.

2. It is an antipyretic but not an antiperiodic, whence its inefficacy in intermittent fevers as a *preventive* of the paroxysms.

3. Its administration only gives rise to slight and occasional complications, such as moderate sweating, pharyngeal constriction, slight nausea or vomiting, and in some relatively rare cases to a rubeoliform or scarlatinaform eruption. No tendency to collapse is produced, nor any intoxication such as is caused by preparations of cinchona and salicylic acid.

4. Numerous observations have demonstrated that it constitutes a powerful, and up to the present time the sole means of efficaciously lowering the temperature in tuberculous subjects. After a dose of two grammes, administered especially in the evening at the time of the recurrence of fever, the temperature falls half a degree Centigrade, by the end of half an hour, and sometimes after a quarter of an hour. It then diminishes progressively, until the normal temperature is attained in an hour and a half or two hours. It is, however, sometimes necessary to prescribe an hour or two later another dose of one or two grammes; but in phthisical subjects, it, in consequence of the very certainty of its actions, and with the aim of avoiding accidents that may be induced by hypothermia should only be administered in small and increasing doses, as from two to four grains.

5. The antithermic effect is ordinarily maintained in these patients for from six to nine hours, and is sometimes perceptible on the following day, during which the temperature does not regain its previous height. The subsequent rise of temperature takes place progressively, resembling in that the course of defervescence. It is never sudden, as with kairin, and is never accompanied, like the latter substance, with more or less prolonged shivering.

6. It is eliminated in the urine, in which its presence is recognized two to four hours after its administration, during a period of from 30 to 48 hours. Some drops of perchloride of iron poured into urine of patients taking this medicine immediately produces a highly characteristic red color.

7. Dr. Huchard cannot speak from his own experience as to its effects in typhoid fever; but he is disposed to regard the doses of from six to eight grammes per diem, recommended by various observers, as excessive, as in several of the cases in which they had been employed a condition of hypothermia has been induced, the temperature falling to 35° or 36° C. In typhoid fever, also, the temperature, after having been lowered, will about the fifth or sixth day rise again a degree Centigrade for about an hour, after which time it resumes its regularly descending progress. Dr. Huchard has also noted the same temporary ascent of the temperature during the apyrexia, due to action of antipyrin on the fever of phthisis.

Koumiss.

Before the Medical Society of London, November 17, 1884, Dr. Carrick read a paper on the preparation of koumiss from mares' milk. He observed that the milk of mares resembled that of women more than that of any other animal. The milk of women, mares, and asses was alkaline; the milk of cows was neutral, or more commonly acid. In the former class, the casein was precipitated in thin flakes; while in cows' milk the clot was firmer and more solid. Women's and mares' milk could not be churned into butter, owing to the small percentage of fat present. The koumiss of the Steppes was, in fact, mares' milk which had undergone the lactic and and alcoholic fermentation. The amount of alcohol and of acid depended on the length of time for which the fermentations were allowed to proceed. Koumiss, being remarkably digestible, was of great use in wasting diseases; it could be consumed in large quantities for considerable periods. It was especially useful in phthisis, where it improved digestion and nutrition: and its action on the

mucous membrane, as well as its slightly constipating action, were of great use in ulceration of the intestine. It was contraindicated in diseases producing overloading of the right side of the heart, in atheroma, or aneurism. The beneficial effects of koumiss were best seen in patients who visited the Steppes, and it might be advisable to repeat the visit for six or seven summers in succession.

Dr. Jagielski had introduced koumiss into this country fifteen years ago. Clinical experience led him to believe that koumiss made from cows' milk was as good as that made from mares' milk. It was necessary to remove part of the casein and part of the fat, and to regulate the amount of sugar.

Dr. Theodore Williams, while recognizing that the koumiss made from mares' milk was the original preparation, had found cows' koumiss very useful in severe vomiting or hysteria, but not in phthisis.

Dr. Cullimore suggested that, in the "koumiss-cure," much importance ought to be attached to the pure air of the Steppes.

Dr. Edmunds thought that it was necessary to ascertain the relative nutritive value of koumiss, as compared with other dietaries.

Dr. Carrick thought the air of the Steppes, and the violent exercise taken by the patients, were of great importance in the "cure," as applied to phthisis. The experience at St. Petersburg confirmed the view expressed by Dr. Williams, that koumiss, without the other attendant conditions found in the Steppes, was of little use in phthisis.

Strangulated Hernia in an Infant Three Weeks Old.

Since such cases are very rare, the following case, which Dr. A. Haslewood reports in the *Lancet*, December 28, 1884, is worthy of note:

"On September 22, 1884, I visited a child three weeks old, for whom I had prescribed for symptoms of what the father described as 'spasms.' The child had been in great pain all night, and had been vomiting frequently; the abdomen was immensely distended with flatulence, and the child was evidently very ill; the skin of the face was pinched and shrunken. Over the right external inguinal ring, and into the scrotum, was a very evident hernial swelling, which, the parents said, was not present the previous day. Chloroform was given, and taxis fairly tried, with no effect upon the hernia. I therefore arranged to operate as soon as possible, which I accordingly did the same evening, when, after thorough insensibility was produced, taxis was again tried, both by myself and my friend, Mr. Arthur Shipton, whose valuable coöperation I had throughout; but we failed to produce reduction. On cutting down upon the tumor, a very tightly strangulated direct inguinal hernia was brought into view. Reduction was impossible without opening the sac. The constricted portion of bowel was very dark plum-colored, and formed a loop of about four inches in length. The division of the stricture was by no means easy, owing to the minute size of the tissues rendering it impossible to make good use of the finger in finding the stricture. However, with time and great care a director was passed under the constricting edge, and the stricture divided. Even then the reduction was not at all easy, and the appearance of the bowel so tightly bent round on itself renders it easy to imagine that reduction without operation was out of the question. The further progress of the case was very gratifying. The sickness ceased, the bowels acted naturally the following day, and the child to-day (November 11) is looking extremely well. I would strongly advise any surgeon having a case of a similar nature to select daylight for operating.

The Treatment of Phthisis.

What little we know about this matter is very well summed up by Dr. J. Burney Yeo, in the *London Med. Times*, December 6, 1884:

1. In the first place, to prevent or amend those faults of constitution, organization, and development which predispose to the acquirement of this disease.

2. To prevent or cure those local pulmonary affections which may induce a tendency to this disease, even where no constitutional predisposition is found to exist.

3. To prevent the possible spread of the disease by the conveyance of its germs from the sick to those who are necessarily brought into close contact with them.

4. To endeavor, so far as possible, to antagonize the influence of the infective organism *in situ*, and in its action on the constitution. To attempt to hinder the progress of its development and reproduction, and its extension to the sound parts of the affected lung, and also to the sound unaffected lung, and to prevent the infection of other organs. This is what is understood by antiseptic treatment.

5. To lessen and remove the *fever* and other constitutional disturbances dependent on the in-

fection of the constitution, as well as on the local inflammation.

6. To lessen and arrest the local irritation and inflammatory and catarrhal changes when evidences of such make their appearance.

7. To improve the disturbed and defective nutrition by all the means in their power, medicinal, regimenal, climatic, etc.

8. To relieve the various distressing symptoms that occur during the course of the malady.

9. To diminish as far as possible the evil consequences of the several grave complications incident to its course.

Psoriasis—Verruca—Epithelioma, a Sequence.

Dr James C. White, of Boston, in the January number of the *American Journal of the Medical Sciences*, presents brief notes of two remarkable cases of disease—cases extraordinary, not for the rarity of the pathological processes they represent, but for the very unusual sequence of tissue-change exhibited in their course. There were three distinct pathological affections of the cutaneous tissues: psoriasis, verrucous hypertrophy, and epitheliomatous new growth; not occurring independently of each other, but as successive, mutual transformations in the above order.

The three dermatoses which enter into the clinical history of Dr. White's case, and which are in their nature apparently as unlike as their companionship is rare, have a close affiliation in their anatomical relations. The transformation of patches of psoriasis into horny or warty, permanent growths is not referred to in most works on dermatology as of possible occurrence even; the transformation of verrucous growths into epithelioma is of not very infrequent occurrence; but the uninterrupted sequence followed in this case, psoriasis — verruca — epithelioma, or in other words psoriasis, as a cause of carcinoma, is extremely rare or unparalleled in dermatological history. The practical lesson to be deduced is that the transformation of patches of psoriasis into verrucous hypertrophy must be regarded as an ominous occurrence, and that the softening or other change of such horny growths demands thorough excision without delay.

Cardiac Debility.

From the *Medical Record's* report of the fifty-seventh meeting of German Naturalists and Physicians, we learn that Professor Seeligmüller, of Halle, presented a communication upon this subject. The author pictured the group of symptoms, usually called cardiac neurasthenia, as follows: after a period of cardiac disturbance, palpitation, pain in the precordial region, there ensues a condition of general weakness, expressed by fatigue after slight exertion, insomnia, forgetfulness, and distraction, and a depression of spirits. At the same time, despite a good appetite, sometimes even boulimia, there is a falling-away in nutrition, the extremities are cold, and there is at times a feeling of formication. In the absence of any organic changes, the author was inclined to refer these symptoms to anomalies of innervation, especially as they occurred most frequently after psychical disturbances, as prolonged sexual excitement, severe mental labor, combined with broken rest, etc. Rest, warm baths, good nourishing food, sea or mountain air, and quinine in small doses often exerted a favorable effect.

Dr. Wagner spoke of the difficulty of diagnosis at the first examination in these cases. In all heart affections where there were no apparent physical disturbances, especially in those of advanced years, disease of the coronary arteries should be suspected. The speaker had seen cases similar to those described by the author of the paper in women who had borne many children or who suffered from certain forms of uterine disease. This condition was caused in those cases by an overloading of the abdominal organs with blood, and was much benefited by wearing an abdominal supporter.

The Administration of Nitrous Oxide.

In the course of an address on anæsthetics by Dr. Woodhouse Braine, in the *Brit. Med. Jour.*, November 29, 1884, we note the following:

Pregnant women, even as far advanced as eight months, take nitrous oxide well. I may here mention the case of two patients, who were suckling, and in whom the shock from the extraction of a tooth, without the gas, stopped the secretion of milk; subsequently, having to undergo a similar operation, under like circumstances, they determined to take the gas, and in neither instance did any derangement of the function of lactation occur. Children with chorea, and people who have had hemiplegia, take the gas well. In phthisical patients, if the mischief is extensive, some caution is necessary; as in these cases the anæsthesia deepens after the removal of the face-piece, so that it is neither necessary nor advisable to start with any deep amount of insensibility. It is perfectly safe to administer this agent to epileptic patients. I have met with several cases where the extraction of a tooth, without gas, has pro-

duced an epileptic attack, but I have never seen one occur when gas has been given.

A little time ago I accompanied a surgeon to a case of circumcision, on a boy, about 2½ years old. On entering the room I found the patient lying on the floor, in a very severe epileptic fit. In a short time he became partially awake; and, not seeing any good reason for waiting, I anæsthetized him there and then; and, after the operation, he recovered in the usual way.

Great age is no bar to the administration of nitrous oxide; my oldest patient, a lady, having reached the age of 94.

Intra-Uterine Applications of Nitric Acid.

According to Dr. Thomas More Madden (*Brit. Med. Jour.*, November 29, 1884), the most active of all the agents employed in intra-uterine medication is fuming nitric acid, introduced into modern gynæcological practice by Dr. Kidd in the Coombe Hospital, and subsequently employed by Dr. Atthill in the Rotunda, and by himself in the Mater Misericordiæ Hospital, Dublin, long before it was thus applied elsewhere. In the intra-uterine use of nitric acid, it is necessary that the os uteri should be fully dilated and exposed to view, the posterior vaginal wall properly protected by the duck bill speculum, and the uterus well drawn down by a uterine tenaculum, designed for this purpose, and which can be easily disengaged from the firm hold on the cervix, and withdrawn by merely turning the screw-adjustment in the handle. In this way, the uterus may be well swabbed out with the fuming acid, the whole charge of which is thus expended on the intra-uterine surface, so as to avoid injuring the vaginal walls or external parts; though as an additional precaution, these should, moreover, be smeared over with vaseline beforehand. Immediately after the application, the uterus and vagina should be thoroughly washed out, until no trace of acid is discoverable in the returning water; finally, if any pain be complained of, a morphia-suppository should be introduced. When thus employed, nitric acid may generally be as safely as effectively used in those cases of intra-uterine disease in which its application is really necessary, and to which it should be carefully restricted.

The Early History of Galvanism.

Dr. C. A. Gordon thus concludes a paper on this subject in the *Med. Press*, November 19, 1884:

1. A knowledge of electric phenomena had existed, although in a very incomplete stage, from very ancient times.

2. Throughout the sixteenth and seventeenth centuries investigations on that subject were pursued, and many successive discoveries effected.

3. Electricity was practically utilized in 1748; "galvanic" phenomena observed in 1762; that is, considerably before the date of Galvani's experiments.

4. The chief experiments recorded of Galvani were performed on decapitated and dismembered frogs; others upon amputated limbs and executed criminals. Thus the non-necessity of *living* animals for the purposes in view is indicated.

5. So long as experiments were restricted to persons and animals, whether alive or dead, no definite advance took place in the useful application of the power. It was only when experiments came to be performed upon salts and metals that real progress began.

6. In 1721 "the germ of the electric telegraph" was discovered; in 1753 a telegraph was in actual operation—both these dates anterior to the time when Galvani's experiments were performed.

7. To Volta is due the credit of having contrived in the form of his "pile" the first "galvanic" battery so-called.

Irritable Hymen.

Dr. Angus Macdonald reports the following case in the *Edinburgh Med. Jour.*, December, 1884:

Mrs. G., æt. 26; one year married, no children, but one miscarriage. Admitted to ward 28, complaining of dyspareunia.

Physical Examination.—In the deeper part of the vulva, immediately outside the hymen, and involving it, there are large red, excessively irritable patches, which give rise to extreme pain when touched, and render marital intercourse impossible.

Treatment.—The part was dressed with iodoform for some time; but as this treatment was only partially successful, Dr. Macdonald, on January 22, 1884, removed the mucous membrane all round the hymen, and brought the edges together with a continuous catgut suture.

February 18.—All special irritability has departed from the irritable surfaces, and the patient was dismissed cured.

The above is one of a class that gives considerable trouble to the gynæcologist. I acted upon the suggestion of the late Dr. Marion Sims, and removed the irritable hymen and adjacent tissues with the knife. To get rid of capillary oozing, I brought the surfaces together with continuous

catgut suture. The patient did well, and went out apparently cured. Whether the cure has been permanent I have not been able as yet to ascertain.

One Thousand Cases of Abdominal Section.

Having performed a series of one thousand operations of abdominal section, Mr. Lawson Tait sums up his results in the *Medical Record*, January 3, 1885. He premises, in order that his remarks may be the better understood, that in every case the peritoneum was involved.

ANALYSIS.

	Cases.	Deaths.	Percentage Mortality.	
Exploratory incisions	94	2	2.1	
Cystoma: Parovarian	65	2	3.07	8.1
Cystoma: One ovary	239	26	11	8.1
Cystoma: Both ovaries	101	5	5	8.1
Removal of appendages for myoma	99	7	7	
Removal of appendages for inflammatory disease	201	10	5	
Removal of appendages for epilepsy	6	0	0	
Removal of appendages for deformity	1	0	0	
Hysterectomy	54	19	35.7	
Opening for draining pelvic abscesses	30	0	0	
" " incomplete operations	30	15	50	
" " cholecystotomy	13	0	0	
" " nephrectomy	3	0	0	
" " nephrotomy	9	0	0	
Extra-uterine pregnancy	11	2	18	
Hepatotomy for abscess and hydatids	10	0	0	
Hepatotomy for hydatids of peritoneum	2	0	0	
Tumors of omentum and mesentery	5	0	0	
Enterotomy	8	1	12.5	
Adhesion of intestines relieved	2	0	0	
Chronic peritonitis opened and drained	7	1	14.3	
Acute peritonitis	2	1	50	
Umbilical hernia	4	0	0	
Cæsarean section	1	1	100	
Scirrhus tumor of abdominal wall	1	0	0	
Suprapubic lithotomy	1	0	0	
Enucleation of myoma	1	1	100	
	1000	93		

Mr. Tait details his experience with various anæsthetics, and comes to the conclusion that he is now better pleased with a mixture of ten parts of ether and one part of chloroform, given by means of Clover's apparatus than with any other. This mixture is rapid in its action, and not at all unpleasant to the patient, and the sickness after it is far less than with anything else he has ever used. It does not produce bronchitis, nor does it arrest the secretion of urine as ether does.

A Simple Treatment for Strangulated Hernia.

The *Med. Record*, January 3, tells us that a correspondent who has forgotten to attach his name to his article writes calling attention to a simple expedient that he has resorted to successfully in cases of strangulated inguinal hernia after taxis had failed. It consists in dilatation of the constriction which produces the strangulation at the internal abdominal ring by passing the finger along the inguinal canal, carrying the integument before it until the constricting ring is felt, which generally is easily done; the finger is then gently insinuated into the opening, and if the band of opposing fibres does not yield readily, gentle pressure is made against the upper border of the ring until it is felt to give way, when a resort to taxis again will ordinarily result successfully.

The advantages to be gained by this expedient are that it can be tried as soon as moderate efforts at taxis prove ineffectual, and before the tissues involved are injured by prolonged or severe manipulation; the patient is saved from the dangers resulting from delay; and the dangers attending operative interference, with the complications and sequences which may arise therefrom, are supplanted by a procedure which is harmless in itself and is not liable to be followed by any complications.

He finds that there is no danger of creating a larger permanent opening at the internal ring. He has tried it in five cases.

Painful Mamma in Young Girls.

While not very common, yet we occasionally read of this condition, and it is well that we should know that before the Harveian Society of London (October 16, 1884), Mr. John H. Morgan described the case of a well-made girl, aged 11½ years, who had suffered from severe pain in the left mamma for some time, which had become more acute lately; the gland was very little enlarged, and showed no symptoms of inflammation, but was the seat of great pain, and was very tender to the touch. The pain was continuous, with exacerbations. There was no history of injury; the catamenia had not appeared. Shortly afterwards, the right mamma became affected in an exactly identical manner. Neither local nor general treatment afforded relief. After some weeks, the pain began to intermit, and at length gradually disappeared. Notes were read of six other similar cases, in five of which the left, and in one the right, mamma was the seat of pain. The children were between 10½ and 12 years old; none had menstruated, and in none was treatment, either local or constitutional, of much benefit. It was suggested that this pain was not due to inflammation, but to some developmental changes in the gland, in sympathy with changes in the ovaries and in the organs of generation.

Cocaine in Laryngology.

Dr. Edmund Jelinek contributes some interesting statements on this subject to the *Wiener Med. Blatt.* As the result of numerous experiments in Schrötter's clinic, he says that, if the hydrochlorate of cocaine, either in powder or in the form of a strong solution, is applied to the mucous membrane, a marked diminution of the sensibility of the parts is noticed within a minute and a half. A solution of one part in ten or twenty is recommended, the formula suggested being as follows:

Hydrochlorate of cocaine,	1 part.
Alcohol,	2 parts.
Distilled water,	3 parts.

In examinations of the nose and larynx, it is sufficient to pencil the anterior and posterior surfaces of the soft palate, the posterior wall of the pharynx, and the base of the tongue, the process being repeated after the lapse of a minute, if necessary. The local anæsthesia continues for about ten minutes. Prof. Schrötter speaks in the highest terms of the new remedy. He has produced most gratifying results by its use in cases of acute and tuberculous laryngitis attended with extreme irritation. Both Schrötter and Störk have removed papillomata from the vocal bands after inducing local anæsthesia, and testify to the value of the method.

Tuberculosis of the Uterus.

In the *Med. News*, January 3, 1885, Dr. W. J. Jones, of Baltimore, calls attention to this condition, which, though comparatively rare, yet has not received that attention from gynecological authors to which it is entitled. The clinical diagnosis can be based upon a persistent leucorrhœal discharge and other symptoms which would point to uterine troubles; and in any patient of a tuberculous tendency, in which these symptoms are present, we should be led strongly to suspect an involvement of the genital organs. The diagnosis is often aided by the expulsion of caseous masses from the uterus. Dr. J. evidently agrees with Koch, for he considers the discovery of the bacilli in the secretions a sure means of diagnosis.

In the event of such a case found during life, before the secondary involvement of the surrounding tissues has taken place, a knowledge of how to treat it will present itself for consideration. The authorities which he has examined upon that part of the subject have little or nothing to say. Good hygienic surroundings, tonics, and good food, and perhaps the use of iodoform topically, might at least keep the disease at bay, and thus prolong the patient's life.

Erysipelas as a Complication of Pregnancy and Labor.

In the *American Journal of the Medical Sciences* for January, Dr. G. H. Balleray records two cases of labor with concurrent erysipelas without untoward result. He points out that the management of labor in the case of a woman suffering from erysipelas does not materially differ, other things being equal, from the management of a case of normal labor. The accoucheur should abstain from frequent vaginal examinations during labor; and such examinations as are necessary should be made with *clean* hands. The placenta should, if possible, be delivered by Credé's method; thus avoiding the introduction of the finger or hand within the genital canal. A full dose of ergot should be given after the delivery of the placenta; and the uterus should be gently manipulated until it is *firmly* contracted. In the after-treatment, the nurse should be forbidden to touch the genitals of the patient, without having previously washed her hands thoroughly with *hot* water and soap. The use of antiseptic vaginal injections should be commenced within twelve hours after delivery, and continued as long as there is any indication for their employment.

Laisar's Treatment of Scabies.

The Berlin correspondent of the *Jour. Am. Med. Ass.* (December 13, 1884), tells us that Dr. Laisar's treatment of scabies is as follows:

He has several private bath-rooms, conveniently arranged for all kinds of treatment. A tub of water is charged with a small amount of corrosive sublimate. The patient is stripped, rests quietly in the bath for ten minutes, being careful to keep all parts of the body covered with water. The nurse then washes him all over with green soap, washes it off, then goes through the same process again. Then the entire body is covered by a paint-brush with a preparation of the oil of cade in alcohol. This is washed off as far as possible with green soap, when the patient gets out of the bath and is thoroughly dried. Then the entire body is covered with an ointment of naphthol, sulphur, green soap, and simple ointment, and the patient is told to dress, and to wear the same underclothes until termination of treatment. The latter application is extremely painful, and its effects must be carefully watched.

Enemata of Ipecacuanha in Sunstroke.

From an exchange we learn that Dr. Jos. Baucroft (*Australian Medical Gazette*), finding it difficult to administer medicines by the mouth in

cases of sunstroke, as they may be drawn into the windpipe, and observing that cases which vomited made better recoveries than others, tried emetics, and found it easy to bring about vomiting by injecting ipecacuanha into the rectum. This he does by as soon as possible injecting into the bowels a drachm of ipecacuanha rubbed up in two ounces of water. After the injection, he removes the whole of the dress from the chest and abdomen and irrigates the surface with iced water in a watering-can so long as the temperature seems to require it; but, though the skin may be cooled, the thermometer will frequently indicate a body-heat of from 105° to 108°. Vomiting generally takes place within half an hour, and it is astonishing what a quantity of fluid is at times rejected.

Mediate Syphilitic Infection in Glass-Blowers.

Before the Liverpool Medical Institution (Nov. 20, 1884), Dr. Bernard related four cases. The cases all presented themselves for treatment within the space of three months, the first in August of the present year, and they all worked under one roof. In every case the lips were the seats of sores, and the sub-maxillary glands were enlarged, whilst the penis was free from disease, and the inguinal glands were unaffected. The speaker then referred to Lancereaux's mention of the subject, and suggested that each workman should have and use his own blow-pipe, as was the case in France, that the possibility of such accidents might be avoided.

Correspondence.

Heart Failure.

Eds. Med. and Surg. Reporter:—

I have been particularly interested in the description of symptoms, if not a disease, portrayed by the pen of Dr. Roberts Bartholow. I refer to "Nervous Prostration." While it may possibly be the results of a reflex action, the direct effects are often only seen, and are the symptoms demanding prompt attention. I allude to one of the main and most prominent symptoms, *heart failure*, and look upon this distressing symptom as almost a disease of itself. The "heart failure," which is an almost if not a constant symptom, is the one we are called on to treat.

Having lived in a miasmatic district for twenty-six years, have seen more of this trouble in an isolated form than most any one. Frequently, with the slightest chill, in fact only a nervous rigor, with no appreciable rise in temperature, the entire nervous system is depressed, and the heart is brought almost to a standstill. Like a drowning man gasping for breath, the heart tumultuous, flutters, beats, stops, intermits, and starts with an acceleration due, certainly, to some nervous excitement brought to bear at a head centre. Whether this is malaria, dyspepsia, gout, rheumatic poison, or tendency to a carditis, is the question. One day the patient can digest, as he says, a "peck of wool and a hamper of gums;" the next day he cannot digest cold water—one day he can eat with impunity anything, the next day he dare not touch the simplest food. Angina comes on, and a thousand and one other troubles that make life and living a constant terror. I think it is unfortunate to couple these distressing symptoms with hypochondria and hysteria, when the heart and circulation, not at the will or mercy of such beings, as a general rule tells its own tale.

These symptoms often come on, not in the hours of waking—but persons often are wakened by a tumultuous effort or intermittency of the heart, to find themselves with rigors, perhaps no chill, and not cold even, and the heart depressed and sinking under some terrible influence This is often cut short by mustard plasters below the nipple on the left side and over the epigastrium; the left breast is often left sore, the muscles frequently jerk like tetanic spasms, and a soreness extends along the tract of the nerve, distributed to breast and shoulder, showing plainly some nerve excitement. It is then the digestion fails, or is altogether perverted—is this a cause or a sequence? The digestion was fine only the day before; they could eat cabbage, onions, and all kinds of vegetables with impunity; but to-day this little nerve influence has exhausted nearly the vital powers. Malaria may excite this state of affairs, perhaps, but it comes hot or cold, melting or freezing alike. I could enumerate a thousand and one symptoms, even while every organ is performing its function—the liver acting, the kidneys in fair coudition, without any apparent influence, while sleeping quietly, these spells have come on.

Having suffered all the above at times, and having been declared sound in body and mind, having little to vex or harass me, and not being easily vexed or harassed at small things, I can speak from a sad experience of suffering, with little aid from medicine.

I reported a case some time ago in the *Medical World*, a so-called typhoid fever case, where many of the nervous symptoms of typhoid fever were present; it was, however during an epidemic similar to the Kentucky and Virginia plague, which, with malarial complication, answered a better description of pernicious fever. The temperature fell regularly twice a day; the transition was sudden, in one-half to one hour, without medicatton, causing stagnation of blood, a venous congestion of lungs and kidneys, with a catarrh of both as a complication, and a marked failure of the heart, and sinking of all the vital powers, requiring brandy, milk, and quinine in *small doses*. Any change in temperature could only be detected by the thermometer in mouth and rectum. Pulse became weak, scarcely perceptible, and often too frequent to count; again slow and intermittent, producing the most alarming results, requiring constant attention. Now the only rational explanation of these sudden changes and their influence on the digestion, if it be reflex, it must be

some poison or irritation to nerves distributed to internal organs—stomach, lungs, heart, bowels, or kidneys—these influences transmitted to the base of the brain, in turn are again sent to stomach probably first, instead of exciting the gastric juice with its acids to aid digestion. Oxalic acid is developed in such quantity as to prevent digestion and irritate the stomach, again causing darting pains or even jerking of muscles. Sometimes a diaphragm, a sense of tightness across the breast, and a sensation as though the stomach and chest were inflated beyond bearing, beside a constant disposition to pass gas by bowels, and often eructations and an acid disagreeable liquid. These symptoms are only while these paroxysms are on them, and not constant. Often the perspiration smells acid and garlicky, and urine shows oxalic and uric acid crystals. Urine generally pale, amber color and low specific gravity, often as low as 1007. There is seldom any disposition to vomit, but when an effort is made to do so the matter emitted is generally very acid, showing evidently the presence of more acidity than required for digestion. Acids taken into stomach generally produce the cramp or increase the trouble, often exciting muscular spasm or tetanic contractions of muscles of breast. Alkalies increase the tightness by generation of gases, and often little eructations from them.

Now, are the dyspeptic symptoms the cause or the result of the "nervous depression," or are not heart failure and want of blood in stomach causes of perverted digestion? Yesterday digestion was good, could eat anything; last night a spell; today pains over kidneys, depressed, and stomach oppressed when anything is taken into it; shooting pains through the breast and membranes of left arm at shoulder and elbow; sciatic pains only after such spells or paroxysms.

I am satisfied that we can find in an oxalic acid diathesis a probable if not pertinent or just cause for erratic rheumatism, and to it I think must be ascribed much of the cause of nerve prostration and heart failure, for I hardly think that uric acid, except in larger quantities than are usually seen in such cases, would produce such results, or even urea; beside, urea in sufficient quantity to interfere so with digestion, etc., would evidently produce unpleasant effects on the brain. which is almost always free, except as far as the terror or constant forebodings of the result of this oppression. Besides, I think the oxalic acid excess may account for the headaches or neuralgias often felt, and the diaphragm or feeling of having swallowed wind, as well as tightness across the breast, and constant and distressing symptoms—the shooting pains or even the jerkings or muscular twitchings so often felt, as well as the pains, soreness, or deadened feelings at the base of the brain—no doubt when all these exciting causes center to discharge their venom through the nerve-centres to distant organs. Another name for these conceptions in my own case. Chlorate of potash and bismuth subnit. have bad effects, frequently irritating the urethra and prostate gland. Muriate of ammonia taken internally, ammonia is disengaged, showing other acid than muriatic present. Would uric acid produce such an action? Ammonia increases bad feelings. Nitric and nitro-muriatic acid will produce angina, and iodide of potash will produce constriction of throat and jaws, like jock-jaw, or when a person gapes and his jaws catch and lock, he can neither open or shut his mouth hardly, until the contractions of muscles are over. Soda bicarb. disagrees, with oppressive fullness felt in breast, or tightness. Muriated tincture of iron disagrees also, producing same unpleasantness and fullness in head, even in five-drop doses three times a day. I can take bromide of potash, but not bromide of soda. Bitters and quinine seem to occasion a dysphagia or constriction about throat like wind had been taken into the stomach, or belladonna had been swallowed. I never have any thirst, care little for water or liquids, except at meals, and only then while taking solid food. Sometimes have a burning sensation after these paroxysms through heart.

I have given you my own symptoms, as exemplary of those generally complained of by others. You may have noticed my last article, "American Pork," in *Medical World*. We had what the Kentucky and Virginia mountaineers have had with the drouth. We also had measly hog cholera pork, and doubtless can trace our epidemic in part, if not in whole, to it. "American Pork" contains more beside trichina. *I can assure you* cholera hogs are continually sent out; diseased meat, and meat saturated with saltpetre, equally destructive to intestinal mucous membrane and kidneys, in the manner in which it is used—sliced and fried without boiling or soaking. I can give you some dots here.

CHAS. C. THORNTON.

Thornton, Miss.

The Profession in Pennsylvania.

EDS. MED. AND SURG. REPORTER:—

The Legislature of the State of Pennsylvania in times past have been turning professional somersaults, and exhibited very exalted ideas of the wants of the medical profession. For "instance:" On the 24th of March, 1877, a law was passed "that no person should practice medicine or surgery without a diploma or five years' practice."

There lived near me a young man who had just started out to practice homœopathy without any medical education whatever, and the passage of that law scared him so badly that he hired a practicing homœopathic physician to attend a course of medical lectures in his name, he paying the expense. He knew that he could never get a diploma on his own merit; but he is as good an M. D. as any one now.

That is the only wonder that law ever worked here to my knowledge.

Same act, sec. 4, relates to transient practitioners, but is a dead letter. One of those traveling station mountebanks stops at the town of ——, advertises liberally that he has *permanently* located, and until a suitable office can be secured, will be at Hotel ——, rooms ——; but in a week or ten days, having lined his pockets with shekels, goes to the next town to play the same game.

Registry Law, approved June 8, 1881, provides for the registration of *all* practitioners of medicine and surgery.

But a few miles from my place lives a man per-

fectly illiterate—he cannot read a word in any language, cannot write his own name—but he is a registered practitioner, and exhibits the receipt he got from the Prothonotary for his fee to those ignorant as himself, as his diploma. Says he got it from the State of Pennsylvania; didn't go to *Phydelphy*, where they keep them to sell, and buy it, as most of them do.

I fail to see how that law amounts to anything. You can go to the "books" and see who have diplomas and who not, but that does not regulate the practice of medicine, nor raise the standard of medical education. Battle with this problem as long as you may, legislate till the ballot-box is worn out, but just as long as those illiterate charlatans are permitted to blow their horns over the land, don't look for a higher standard of medical education. Don't legislate for the schools: legislate for the people. If the twin sisters, education and civilization, have an influence or power, it should be used to control and enlighten and do for the ignorant what they cannot do for themselves. They are apt to look with distrust upon the educated, and the smooth-tongued charlatan fans the flame of their fears.

Get rid of those parasites—those barnacles that are not only degrading to the profession, but through their ignorance people our cemeteries faster than disease.

I have in my mind two or three men that educated themselves for the medical profession, gentlemen in every sense; but when compelled to recognize Dr. Ignoramus, to hear his praises sung by trumpet-tongued followers, divide profits with ignorance and deceit, see people, intelligent at least as the common run, recognize such blatherskites, and follow after them with as much enthusiasm and delight as a boy after fife and drum, throw up their profession in disgust and remain silent "lookers-on in Venice." The dead branches of ignorance are sapping the vitality of the profession.

There is little encouragement for a man to spend the best years of his life to educate himself for usefulness, and then have an ignorant, trumpet-tongued ignoramus sit down beside him equal before the law. "Equal?" Yes, superior; for in this State "ignorance of the law excuses no man," applies to *law* only: in medical practice the law does not punish a man for what he don't know (that is, as I read the law); and the man without a diploma is far the best off—nothing to lose, not accountable, everything to gain. If he loses, well, he has done as well as old M. D. was likely to; and if he gains, the shout will go up long and loud; he will be feasted and feted, and the horns will blow in indelible letters on every available board and barn in the country.

Give us a law that none but the competent shall handle medicine or prescribe for the sick. That will be encouragment enough and compulsory enough to fill the medical ranks with competent applicants.

Conneautville, Pa. ORSON HOUGH, M. D.

—The latest remedy for pruritus, when seated in the anus or vulva, is balsam of Peru. The *Brit. Med. Jour.* alludes to it as a new triumph in medicine.

NEWS AND MISCELLANY.

A Tribute to Lister.

Dr. C. G. Wheelhouse thus concludes his interesting paper on "*Pent-up Secretions*" in the *Brit. Med. Jour.*, January 3, 1885. Speaking of "FŒTOR," and the "ENTRANCE OF AIR TO PENT-UP SECRETIONS," he says:

"To us, in former days, here lay the great secret; we were well aware of that; and hence the carefully precise instructions that were given to admonish us to keep out the air from all our wounds, our explorations, our burns and scalds, and so forth; subcutaneous incisions; valvular openings, tunnelling into abscesses—anything, everything, to keep out the air!

"In all this, the first faint glimmerings of the dawn of better things may now be perceived; and, taken in combination with the fact that, having steadily fought the battle of the various dressings for wounds; the old and filthy poultices and cerates, under the influence of which I, when a dresser, have seen hundreds of maggots collect in twenty-four hours in an amputation-wound; the carefully neat, elaborate, painful, and baneful dressing by tight plaster; the much-vaunted 'water-dressings,' and 'dry-dressings,' and 'healing under scabs,' we found men, like Spencer Wells, seeking to protect wounds, alike from the decomposition of the exudations on the one hand, and of the air on the other, by covering them with 'pads of calcined oyster-shells and oil of tar,' with thick layers of cotton-wool, and so on, you may be sure that we were running with a fine scent, and were pretty certain to 'find' in the end!

"It was, indeed, often noted that air, if closely filtered, might pass into the cellular tissue of the body without doing more than simply temporary harm, as in the case of fractured ribs with penetration of the lung, in which air so filtered by passing through the air-cells, though actually distending the areolar tissue to the point of disfiguring the body beyond recognition, was nevertheless speedily re-absorbed, if not evacuated, and did no real harm.

"But to none of us, until Sir Joseph Lister arose, and drew aside the curtain from our ignorance, and showed us how the air we breathe, and which penetrates into the most hidden and secret recesses of our bodies, is laden with microscopic life and with germs, ready, the moment they alight upon a cultivable soil, to spring into life, and run riot in our wounds, our 'pent-up' secretions, was the revelation made that, to 'sterilize' that air was the only way in which septic mischief could be prevented, and surgery be rendered harmless.

"Towards this now attainable end, we of the nineteenth century have only advanced a certain distance on the way; but, to some of you it may be given to see the full fruition of our hope; and may you, gentlemen, bear your share in the good work."

An Anti-Vaccinator's Funeral.

The *Medical Press*, December 24, 1884, contains the following account of a most remarkable funeral that recently took place in London:

"No stronger evidence of the oft-repeated but much-abused dictum that 'this is a free country,' has been adduced of late than by the extraordinary funeral procession which passed through the principal thoroughfares of London on Saturday last. Here was an exhibition illegal in its essence, blocking the traffic, and appealing to ignorant prejudices against one of the most righteous laws ever promulgated. This so-called demonstration consisted of an open hearse with a child's coffin, preceded by a brake with a brass band playing the Dead March, and followed by a number of vehicles smothered in placards abusive of the Vaccination Act, and of every one not crazy enough to sympathize with their peculiar view of thought. Handbills were also freely distributed *en route*, and the police made no effort at interference beyond directing the crowds to move on. Truly, this is a free country! The following is a specimen of the literature forced into the hands of the public through which the procession passed:

"'Thou shalt do no murder—Exodus xx. In Memoriam, William Rd. Duncombe, aged six months, who was legally killed by vaccination. Was vaccinated on November 5, being perfectly healthy at the time. He was never well again, but sickened for death. His arm was much inflamed. On the 30th day of November a red rash appeared all over him. On 2d December he had four fits of convulsions. On the 4th of December the rash disappeared. Large lumps formed behind the ear and under the vaccinated arm. The vaccination marks had run into two deep and inflamed wounds, and he died in great torture on December 13. The mothers of five children legally killed by vaccination follow him to the grave, and ask of the people of England the repeal of the Vaccination Acts.'"

Specialties and their Relation to the Medical Profession.

Dr. L. Duncan Bulkley, of New York, read a paper on this subject before the American Academy of Medicine in August, 1884, which thus concludes:

1. The science and practice of medicine has, in company with other sciences, become so vast that no one mind is capable of fully grasping every portion of it.

2. Unconsciously, its various departments have become divided up, and from natural causes certain men have become prominent in various departments.

3. The so-called specialties in medicine are so great and extensive each, that particular or exclusive attention is now devoted to them, the study and practice in each branch being sufficient to fully occupy one's time.

4. The development of these branches has greatly increased the scope and extent of medical knowledge.

5. Every medical practitioner should be more or less of a specialist, excelling in some particular direction.

6. To properly follow and develop one of these specialties, the medical man should be particularly well educated, theoretically and practically, in general medicine as well as in his special branch.

7. This tendency to specialism in medicine can not be arrested; but the difficulty tends to solve itself, by the education of practitioners and students in these specialties, so that the majority of simpler cases shall be treated by them, while the more difficult and obscure cases will naturally fall to the specialist who refuses to treat other diseases and confines himself to the practice of a single branch.

Cannibalism.

The strange drama of cannibalism developed by the history of the survivors of the British yacht, Mignonette, has just come to an end in England. It will be remembered that the yacht foundered some months ago off the African coast, and the survivors, after a good many days of starvation and exposure, saw no hope of rescue, and, as a last resort, the captain killed a boy named Parker, and upon his flesh the party lived until help came. This is the barest outline of an awful story of suffering and starvation. The act was not deemed by the captain to be murder, but a measure of self-preservation, and was not concealed. A different view, however, was taken in England, and he was put upon trial for murder. The case attracted great attention from the unusual circumstances attending it, and much sympathy was felt for the accused.

The trial resulted in the jury finding the facts as above stated, but not determining whether they constituted murder or not. This was left to the judges, and Court of Appeals recently decided unanimously that the act was murder. The sentence of death by hanging was then pronounced by Lord Coleridge, but the black cap was not prescribed, showing a desire to relieve the disgrace of the mode of death. It was also said that if clemency was to be exercised, it must be by the Queen. This has just happened, for the telegraph announces that the sentence has been commuted to six months' imprisonment without labor. This action by the Queen will be received gratefully by the community, for the deed, while technically a murder, had so many extenuating circumstances as almost to lift it out of the grade of crimes. It is a matter for rejoicing that the cases are exceedingly rare when the choice has to be made between death and the destruction of a fellow creature.

A Novel Urinary Analysis.

Dr. M. N. Miller thus writes to the *Med. Record*, January 3, 1885:

A bottle of urine was sent me a few days since with a request for microscopical examination. The gentleman making the request wrote that the urine had been examined by an expert, but it had been done some months since, and he kindly enclosed a copy of the expert's report, which I have again copied *verbatim et literatim*, and send herewith. I do not know as it will contribute anything to the instruction of your readers—though it may amuse them.

"Report. The urine contains excess of phosphates, Epithelium, granular and Hyaline Casts, Albumen hematin Pus corpuscles, Some spermatoza cholestearine biliverdine uric acid in Large quantities.

"the urine is acid sp. G. 1005.

"This shows that you are suffering from Chronic Nephrosis of the Kidneys and Addison disease of the super Renal Capsules with a tendency to Bright's disease or Albuminuria.

"I shall not prescribe as you have your own doctor. I recommend Vichy water pretty freely.

"———."

The Insane Asylums of Canada.

The insane asylums of Canada are copying some of the objectionable practices of some of the asylums in the States, and are in need of reformation of a decided kind.

Judge Jette, of the Supreme Court at Montreal, after a suit pending for several months, has directed the discharge from the Longue Pointe Asylum of Mrs. Rose Lyman, who has been incarcerated there for three years. The facts as stated in the papers are as follows :

"Three years ago her husband had her incarcerated in the institution, the superintendent certifying to her insanity. She has since been confined in the most refractory ward, although the resident physician testified on oath that she was sane when admitted. When the fact of the gross outrage became public, citizens all over the Dominion subscribed a fund to enter the suit for her liberation. Mrs. Lyman has brought suit for separation from her husband, and also for $10,000 against the Government Medical Superintendent for signing the certificate of her insanity."

The Oleomargarine War.

The oleomargarine war waxes furious in some of the States, and in New York the last phase of the contest is a decision by the Supreme Court in the Second District that the law on the subject passed by the last Legislature is constitutional. There was one dissenting judge, and the case will be appealed, as the questions at issue are of a good deal of public importance. Much has been recently claimed for the "police power" of a State in the way of preventing trades or manufactures alleged to be injurious to the public, and it is important that some clear statement of the law should be made.

It is unquestionable that the manufacture of dirty or impure oleomargarine can be stopped legally, and also the offering for sale of oleomargarine for real butter ; but the point to be absolutely settled is whether all manufacture of the article can be prohibited in order to secure this object.

The progress of the case will be watched with some interest.

Medical Education.

Before the Midland Medical Society (England) December 3, 1884, Mr. Haslam read a paper on medical education, in which the question of what education the student should have before commencing his medical studies was discussed. Many students at present entered at a hospital with little or no knowledge of such subjects as chemistry, botany, or physics, and were consequently unable to study at once, with advantage, either physiology or chemistry; moreover, they had not learnt how to work at scientific subjects, and so lost much time on this account. It was suggested that much benefit would be derived from having a medical college, where boys intending to study medicine could enter, after having passed one of the preliminary examinations, and spend a year acquiring some knowledge of these scientific subjects that would be of use to them later on ; they would then be able, on entering at a hospital, to study with greater advantage the various medical subjects met with there, and would have more time to devote to attending hospital-practice.

The Jefferson Medical College Hospital.

The Trustees of the Jefferson Medical College Hospital presented their annual report January 17, 1885, which sets forth that during the past year 12,618 patients were treated, of which 1,290 were in the wards of the hospital, and 11,328 in the out-patient department. There were 33,414 visits made to charity patients. The above were attended by 41 physicians and surgeons, of whom 36 were on duty daily. During the year 27,866 prescriptions were filled in the dispensary. The report contains the gratifying statement that the mortality of the ward cases, including accidents, was but 45 to 1,000.

The Graduating Class of Jefferson College.

The graduating class of 1885 of Jefferson Medical College held a meeting in the lecture-room of the college, January 17, for the purpose of organizing the class prior to graduation. The following officers were elected:

President.—Dr. J. D. Orr, Pennsylvania.
Secretary.—Dr. J. E. Oliver, Missouri.
Treasurer.—Dr. J. C. Barr, Pennsylvania.

Items.

—An official register of physicians and midwives of Illinois has been issued by the Board of Health of that State.

—By the recent charity bazaar held at the Natatorium, in Baltimore, for the Nursery and Child's Hospital, $6,500 net, were realized. This will be utilized in furnishing the new wing of the hospital.

—According to the Commissioner of Education, General Eaton, there were 8,681 medical students in this country in 1873, and 15,151 in 1882. The medical schools increased during the same period from 94 to 134.

—According to the *Jour. Am. Med. Ass.*, December 13, 1884, Prof. Frerich states that interstitial hypertrophy of the liver is always due to one of four causes: 1. Alcohol. 2. Syphilis. 3. Malaria. 4. Transmitted inflammation from the gall-bladder.

—For a number of years it has been the custom in Dublin to have an annual foot-ball game the day before Hospital Sunday for the benefit of the Hospital Sunday fund. In this country the advantages accruing to hospitals from foot-ball games are chiefly clinical.

—A Parisian jeweler has been fined fifty francs for homicide through imprudence, and ordered to pay 150 francs damages to the parents of a child whose death he had caused by piercing its ears for earrings too high up, the operation having been followed by inflammation.

—While other professions are laboring, organizing, scheming, for their own advancement and for the establishment of their power over society, ours has so completely forgotten its common interest in individual sacrifice, that to this day it remains, as has been well described for all practical purposes, a disorganized rabble.—*Asche.*

—Dr. Louis A. Duhring reports in the January issue of the *American Journal of the Medical Sciences*, a marked example of what he has described as dermatitis herpetiformis. The history of the case, including the cause of the disease—a violent shock to the nervous system—is both interesting and instructive.

—Spasm of the tongue, occurring as an independent affection, is recognized to be quite rare. A case has recently fallen under the care of Dr. Edmund C. Wendt, which he records in the January number of the *American Journal of the Medical Sciences*. The history of the case shows the decidedly beneficial action of galvanism in localized muscular cramps.

—Dr. Atthill, of Dublin, uses the following lotion in pruritus vulvæ, and it is also applicable to pruritus ani, a pledget of cotton being soaked in it and passed up the anus and left there till the next defecation, when it was removed:

℞.		
	Acid carbolic,	gr. xx.
	Tinct. opii.,	℥ ss.
	Acid hydrocyanic dilut.,	℥ ij.
	Glycerine,	℥ ss.
	Aquam ad.,	℥ iv.

—Dr. H. Lawson, of Cuthbert, Ga., who is described by the editor of the *Southern Medical Record* as "a modest though worthy practitioner," announces a cure for cancer. It consists, as we understand, in the heroic use of arsenic, combined later with caustic applications. In one patient suffering from epithelioma on the left temple, one-fourth of a grain of arsenious acid was given, and gradually increased to three-fourths of a grain.

—The following, suggested by a retired army surgeon, is going the rounds of the press as a cure for gonorrhœa:

℞.		
	Zinci sulph.,	
	Ext. belladonnæ,	āā grs. xx.
	Mucilag. acaciæ,	℥ j.
	Aquæ,	ad. ℥ viii. M.

Sig.—A teaspoonful to be injected frequently. An ointment of opium and belladonna also to be smeared along the perineum and crus penis at night.

—The characteristics of the cholera epidemic of 1884, as summed up by a committee of the Académie de Médecine, composed of M.M. Dujardin-Beaumetz, Hardy, and Proust, are as follows: 1. Relative benignity, corresponding with the regular decrease in the gravity of cholera epidemics since 1832. 2. Absence of special premonitory constitution, as shown by choleriform diarrhœas. 3. Uncertainty, or at least great variability, in the mode of propagation. 4. Many facts showing that the disease is very contagious; many others showing the contrary.

—The violent anti-vivisectionist, Ernst Heinrich von Weber, has recently been sentenced to eight weeks' imprisonment. In the journal entitled *Der Thier- und Menschenfreund*, of which he is the editor, he published, under the heading "Vivisection of a Man," a statement that about eight years ago a Jewish physician of Osnabrück had made a post-mortem examination of a man while only apparently dead, and therefore had performed vivisection on him. Dr. Pelz, who had performed the post-mortem in question, summoned him before a court of justice with the above result. A clergyman of Munster, also, who was the author of the article, was sentenced to six weeks' imprisonment.

—Mr. Meredith, of London, publishes fifty cases of ovariotomy in the *British Medical Journal*, the work of three years. Forty-six of the patients recovered, making a mortality of only eight per cent. The operations were all performed under spray, and with due antiseptic precautions, to which course the writer attributes the fact that he was able to dispense with the drainage-tube in all but three cases. Mr. Meredith urges an argument against hyperpyrexia being due to the absorption of carbolic acid the fact that in forty-two of his cases the temperature did not exceed 102° F. Nine other cases of laparotomy for various causes are appended to the report, of which one was fatal. These statistics are valuable as the writer is well known to be Mr. Knowsley Thornton's assistant and able exponent of his methods.

OBITUARY NOTICES.

MARCELLUS WHITEHEAD, M. D.

Dr. Marcellus Whitehead, who had been a successful practitioner of medicine in Salisbury, N. C., for upwards of forty years, died of Bright's disease, January 2, aged 64 years.

JOHN PRESTON WOOD, M. D.

John Preston Wood, M. D., of Lamar county, Texas, died Nov. 12, 1884, of locomotor ataxia. Dr. Wood was born in Amelia county, Va., April 4, 1816, and began the study of medicine at the Medical Department of the University of Virginia in 1836. He graduated from the Medical Department of the University of Pennsylvania in 1840. He removed to Texas in 1854, where he continued in the practice of medicine until soon after the war closed, when he retired from practice, owing to disability. He was highly respected, and his loss is mourned by many friends and admirers.

MARRIAGE.

RUSH—PIERCE.—December 21, 1884, at the residence of the bride's father, Mr. William Pierce, by Rev. Dr. Thompson, Dr. A. J. Rush and Miss Laura Pierce, all of Delta county, Texas.

DEATH.

VAN SLYCK.—December 27, 1884, in Brookline, Mass., of apoplexy, Annie E. C. Van Slyck, wife of D. B. Van Slyck, M. D., aged 51 years and 5 months.

THE

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Original Department.

Lecture.

ABNORMAL POSITIONS OF THE HEAD—WHAT DO THEY INDICATE?

BY EDWARD BORCK, A. M., M. D. SURGEON.

Of St. Louis, Mo.

A Clinical Lecture Delivered before his Private Class of Practitioners, with a Case of Dislocation of the Cervical Vertebræ.

Gentlemen: Instead of continuing our study of the injuries of the hand, we shall to-day take up a very interesting subject, about which you can find, so to say, nothing in the journals and very little in the text-books. It is *abnormal positions of the head.* I mean to speak of cases which are of a complicated nature—cases where the different positions of the head will serve as a valuable diagnostic sign in determining the ailment of the patient. It so happens that I am able to bring before you several cases to-day, to illustrate practically what I have to say. You may know at once, that in any mal-position of the head we have to consider the conditions of the neck, both in its muscular and bony structure.

Look carefully at these four little patients sitting before you, and remember what I have so often repeated, that before you proceed to make any manual examination you should precede it with a careful ocular examination. Observe closely, and first learn all the conditions you can with your eyes. Now, how are we to group these conditions for clinical purposes? The answer is, first into cause, and second, progress; for if these conditions were *not* brought on gradually they would lead our minds at once into quite a different channel, and our examinations would end perhaps with a wrong conclusion.

Let us take the first case. Here is a little boy nine years of age. Look at the position of his head. This is a chronic case. He has carried his head for sometime in this stiff manner that he might avoid all rotation, or any movement forwards and backwards. Stand quiet and straight, my boy; now turn your head towards the window. We see he cannot do this, without turning around his whole body. Now, if we knew nothing about the history of this case, how should we begin to make a correct diagnosis? We should necessarily make some anatomical observations, and ask, Are the causes of this abnormal position produced by muscular disease, by disease of the bones, or by disease of the joints? We may put it into still a shorter phrase, and ask, Are any of the active or passive structures of motion here implicated? This simplifies the question, and will serve very well for clinical examination.

Now to our case. The mother tells us that about a year ago this boy began to complain of difficulty in swallowing, and something like constriction around his neck; that he had a cough which continued in spite of cough mixtures. She gave these for some time before she noticed the stiffness of his neck. Then very severe pain came on, and it continued until the present stage of development.

Now, if such a case presents itself to us in the early stage, and after careful physical examination of the chest, and laryngoscopical examination, we can detect no disease of the chest or larynx, sufficient to account for these symptoms, then let us direct your attention to the nerves

that make their exit from the spinal canal at the points opposite to the usual site of the disease. Examine carefully the spinal column in the manner that I have previously shown you; and do not forget that after all, the symptoms enumerated may be produced by reflex nervous irritation.

Here, in this patient, we can observe that there is a swelling upon the left side of the neck; that side is convex; there is pain under pressure, and we can feel a seeming enlargement of the bony part below. This depends, however, upon the swelling of the soft structures united to the bony structures. The head of this boy is now inclined to the right and bent forward, and the sterno-cleido mastoideus on the right side is relaxed and concave. In the progress of the disease this picture will be reversed; the head will then incline to the left side, on account of the bony structures upon that side being destroyed by caries. The diseased left side will then be concave and the right side somewhat convex; at any rate, it is to the concave side we have to look for the destruction going on of the bony parts. In this case the swelling and pain give us the indications of what the disease is.

During the different stages of the disease we shall meet with different symptoms and different diagnostic signs. In some cases we shall find a torsion of the vertebral column, and can feel a prominence in the throat of one or the other vertebra, like steps. In others we may distinctly feel a prominent, painful spinous process. I cannot go into details about this to-day, but during the course, we shall take up this study again. The result of our diagnosis is that this is a case of Pott's disease.

"Pott's disease" begins first as caries of the vertebræ or caries of the joints of the vertebræ. We shall not always be able to tell where the disease first made its appearance—whether in the bones or in the cartilage. Many satisfy themselves by saying, "This is caries or ostitis or periostitis of the cervical vertebræ, depending upon tuberculosis or a scrofulous diathesis." I believe, however, that the majority of these cases result from injuries. We shall learn more about that at some other time.

Now, let us look at this little girl; she is about eleven years old. Observe the very peculiar position, or rather carriage of her head and her distressed physiognomy. Bend your head forward and backward, my child. You see she accomplishes this slowly. Come, sit upon this table; now try to lie down, please. You see she immediately brings both hands to her head to give it support. Now, arise. You see, again both hands are brought to the head to support it. These symptoms came on gradually.

From what you have seen, what would be your diagnosis? You would rather that I should make it. All right; I say there is disease of the second cervical vertebra. Why? Because the rotary movements are accomplished only by the atlas turning upon the dentata, and there are here no visible signs present such as we observed in the previous case; the parts lie too deep to admit of any prominent external indications. The forward and backward motion is accomplished between the occiput and atlas. This the patient can do; therefore there can be no disease at that point.

This affection has been called "Rust disease," because Prof. Rust first described it. It is, however, only a special case of "Pott's Disease." The patient's instinct tells her to support her head to save it from harm. She is in great danger of fracturing the odontoid process, thus injuring the spinal cord and producing death at once. We find the same symptoms when the odontoid process is affected with carcinoma or sarcoma, but the pain in that case will not cease when the patient assumes the recumbent position.

Whenever we have a case where the patient cannot rotate his head, and supports it with his hands during the act of lying down or rising up, we can rest assured we have some disease or injury between the atlas and dentata. Of course, the severity of the symptoms will depend upon the amount of injury, but in no other disease or injury will we find such positive symptoms. We may have a complication of other injuries or diseases in addition to these symptoms, that may not depend upon the injury between the atlas and dentata. They may be of quite a different nature, but no matter what the complications are, we must not be misled and overlook this important point. Ability to make a forward and backward motion of the head, with only a partial or perhaps complete absence of rotation, is our guide to the diagnosis of injuries or disease of the dentata.

Now we place on our patient this temporary cravat. By next Wednesday her apparatus will be made, and we shall apply it, and give her at least temporary relief. I say temporary, because sooner or later these unfortunates will succumb suddenly by fracture of the odontoid process.

Now let us examine the next little girl. She is about six years old. Her mother states that she had this distortion from birth; otherwise she never was sick. But for the last two years this

deformity seemed to grow worse. Her head, we see, is sunk towards the left side, and rotates towards the right side. We see that the sterno-cleido-mastoid muscle of the left side is very prominent, and is shortened by contraction. In all these one-sided contractions, we observe that the ear is nearer the shoulder on the diseased side and the chin is turned towards the sound side. The occiput is also a little lower. Here we have a case of torticollis. We shall meet this same picture in some cases of "Pott's disease" where the disease has been cured with a scoleotic curvature of the cervical vertebræ. How do we make the differential diagnosis? The question is this: Are the contractions of the muscles primary or secondary? A single glance will answer our query. In the case before us we see the head is bent towards the one side and rotated towards the other. If this distortion had been produced by "Pott's disease," the head would also be bent forward, but not rotated to the other side. Primary contractions of the sterno-cleido-mastoid muscle are congenital; secondary contractions are acquired.

These symptoms may, however, be present in a hysterical person, and we must be careful not to be deceived in such a case, for the contractions then depend upon spasms.

This child will be brought here again next Wednesday. I shall then divide this muscle and show you how the head is to be kept in a normal position.

Besides these conditions that we have observed in the three cases presented, there remain a few other abnormal positions of the head valuable for clinical purposes. They are characterized by their sudden appearance. Of course, I mean injuries such as contusions, concussions, luxations, and fractures of the cervical vertebræ. Here let me call your attention to acute rheumatism of the muscles of the neck, which is also a cause of an abnormal position of the head, and though the latter is quite a different disease from the former, nevertheless it deserves the attention of the surgeon, because very often rheumatism (sudden pain of the muscles) occurs in conjunction with slight injuries; and the mal-position of the head produced by acute rheumatism presents almost the same appearance to the eye as if it were produced by injuries, and the two are very often mistaken, the one for the other.

Now, let us take a look at this little miss. She is about twelve years old, of a healthy constitution; she lives in the country. Her parents brought her here this forenoon, with the following history: While playing during recess at school, no doubt romping about with the other children, she felt all at once a quick sharp pain in her neck, her head turned to the left side, and she could not move it. This is rather a unique case, and the interesting point is this: it occurred about two weeks ago; she has been rubbed with liniment, warmth has been applied, etc., etc., all to no purpose. She now has difficulty in swallowing, and her right arm begins to feel numb and somewhat lame. You see that her head is turned to the left side, the left side of the cervical vertebræ is concave, but the muscles on this side are not contracted; the right side is convex. No movement of the neck and head can be executed. You see the left side is somewhat flushed, the right side is pale. This tells us that the vaso-motors are implicated. Here at the highest point of convexity, it is very painful under pressure. Below this point here, I feel a transverse vertebral process. She also has strabismus. The left eye is divergent, the right convergent. What is the diagnosis? Well, we have here a partial luxation of the fourth cervical vertebra, or rather the upper four cervical vertebræ.

What are the differential points between dislocation and rheumatism? In dislocation the muscles are perfectly relaxed; in rheumatism they are contracted; at least they are hard and stiff, and no perceptible prominence of the spinous processes is present. If this is not satisfactory to you, chloroform the patient. As long as the luxation is not reduced, there can be no motion. In rheumatism you can make passive motion at once.

We shall now try to reduce this dislocation, and I shall do this by suspending the patient carefully by the head, and by manipulations. The parents have been informed of the hazard connected with this operation, and have given their consent, and I ask of you not to become alarmed if you see the patient turn blue, and probably suspend breathing for a second. Keep perfectly quiet and tranquil—a virtue the surgeon should always possess.

The child was suspended by the head, and the reduction speedily accomplished.

Ah! this is fortunate. You see the reduction was comparatively easy. Did you notice how blue the child turned for a moment? She can now move her head. The strabismus has disappeared. How easily she breathes now! Now, don't cry, my child, you are all right. We shall now apply, as a matter of protection, one of those temporary cravats and let her wear it for a fortnight.

Cases of dislocation of cervical vertebræ are very rare, at least very few are on record. This is the second case I have met with in my practice, and the first in which I have used this method of reduction by suspending the patient by the head. Luxations between the head and the atlas do sometimes occur; also luxations of the atlas; they are, however, very rare. But very few cases are on record. We may meet with the lateral and bi-lateral dislocation of all of the vertebræ, but with a little thinking, you can draw for yourself an imaginary picture of the position that the head must necessarily assume when such injuries take place.

Contusions of the head may simulate bi-lateral luxations backwards. In such cases, examine the muscles of the back of the neck, and remember, if they are spasmodically contracted there is no dislocation. In paralysis of the muscles of the back of the neck, the head will be drawn forwards and the chin be pressed upon the sternum.

Besides the mal-positions of the head pointed out already, there are other forms which are deserving of our attention for a few minutes. For instance, in dislocation of the shoulder, the patient bends his head toward the injured side. A simple furuncle may be the cause of the head being held perfectly motionless. A swelling or tumor may produce distortion of the head. These secondary abnormal positions may not exactly help us to a direct diagnosis, but if we pay attention to them, they will guide us into a positive direction. In a case of stenosis of the air-passages, we naturally think of croup, but instead of finding the head bent backwards, as children invariably do in croup, it will be bent forwards and a retro-pharyngeal abscess be the cause of the trouble. In a malposition of the head caused by paralysis the muscles are relaxed and atrophied.

Let us finally remember that abnormal positions of the head may depend upon neurotic causes. Spasm of the deep-seated muscles will throw the head backwards. Spasm of the superficial muscles will throw it forwards. The diagnosis can always be made, for the muscles here are contracted. By the contraction of an old cicatrix, such as is left after a carbuncle or burn, very peculiar positions of the head are produced.

A good deal more might be said of the different mal-positions of the head, as a diagnostic sign, but we have gone already far beyond our time, and I hope you have been interested, and that the cases proved instructive to you. I thank you for your attention.

Communications.

INVERSE TYPE OF TEMPERATURE IN TYPHOID FEVER, WITH A REPORT OF TWO CASES.

Temperature Peculiarities in Epidemics, with a Report of Seven Cases in One Family.

BY W. C. HOLLOPETER, M. D.,

Of Philadelphia.

(*Continued from page* 104.)

The point worthy of attention is, that the temperature in this nearly fatal case remained nearly the same for the morning and the evening record. Immermann tells us, that only in cases in which the fever is very severe, and the absolute temperature very high, that the difference is less, and does not exceed three-fourths of a degree.

Case 2. The second member of the family to fall ill was the mother, æt. 32, who had acted as constant nurse to the daughter. It was thirty-four days after the daughter was taken sick, and the daughter was yet in bed, when the mother was compelled to relinquish her duties. I might state that the mother was on the eve of her confinement, that she watched and waited on her sick child up to the hour of her illness, she passed safely through her labor, remained in bed one week, was up and around the house for *five days* before she had any decided symptoms of fever. She had a slight chill, which was soon followed by a temperature of $104\frac{3}{5}^{\circ}$ in the evening. This was, however, the highest point reached. She had no delirium, nor vomiting. Bowels were opened daily, but not unnatural. The temperature remained high for over a week, ranging between 103° and $104\frac{1}{2}^{\circ}$. It had a gradual decline for over thirty-six days, when it reached normal, without any unusual variations between the morning and evening record. Convalescence was very slow. The record was a typical temperature record from the second week of typhoid, yet much milder than that of the child. The puerperal state did not seem to modify the course of the fever or endanger the life of the patient.

Case 3. The husband and father, æt. 36, a house-carpenter by trade, rugged and compactly-built German, was next on the list. He was a perfect type of physical perfection. He continued his work up to the hour of taking to his bed, February 10. He had complained of a cold, headache, and sore throat for two days previously. I found him, on the morning of the 10th, with a temperature of $105\frac{3}{5}^{\circ}$, pulse 90, respiration 20, dry, hot skin, dark and injected countenance, bowels

loose, abdomen flat, very stupid and sleepy. In this case the pulse was full and regular, never going above 90, and yet for over two weeks his temperature lingered around 105°, with profound stupor, alternating with the wildest delirium. He had during the second week constant *subsultus tendinum*, and frequent involuntary movements of the bowels. On the twenty-second day of his illness he suffered a hemorrhage of fully eight ounces. He had several smaller hemorrhages previous to this date. On the sixteenth day his temperature fell to 101⅕°, remaining under 102° with but one exception, when it ran up to 103°. Temperature did not reach normal until the thirty-eighth day.

Case 4. Caroline, æt. 5, was taken ill on January 13, three days after her mother. She started with a temperature of 104⅗°. She had been listless and stupid for a week preceding her complete prostration; during the prodromata I registered her temperature twice daily, but did not find the thermometer above 100°. Two days from the last date the fever had reached 105⅖°. From this point on it was a gradual decline for twelve days, when it as gradually climbed up to its old figure of 105⅖°. This intermitting type continued for forty-two days, when it fell below 100°, and I ceased to make a record. The case was one of unusual severity, frequently losing large quantities of blood by the bowel, yet constipation was the rule throughout the illness. Epistaxis was also constant, the face being stained daily with blood; low delirium existed for over two weeks. The patient was in bed for over seven weeks.

Case 5. Katie, æt. 10, had a temperature record of her own—a marked difference existing in this case from the others. Above 104⅖° to start with, reaching 105° the same evening, remaining above 104° for *three days*, then gradually declining for three days, when it assumed again the upper tendency, holding it for three days, then came a rapid fall. This intermittent character in the temperature continued for thirty-two days.

This case was obstinately constipated throughout her illness, and was but slightly delirious. Recovery slow, six weeks in bed.

Case 6. Pauline, æt. 14, an unusually well-developed girl, and the last case which I deem of sufficient interest to record in the history of this family epidemic, will also illustrate a different phase in temperature irregularities. Three of the children before they became actually sick were noticed to have a weary, listless expression, did not manifest interest in their play, showed a decided preference for the house, which was contrary to their usual habits.

I registered the temperature of two of the younger children for a week or more before they were stricken down, and I did not find an elevation of temperature but slightly above normal, unless the temperature was taken in the evening, when it was generally near 100°. Taking into consideration the daily fluctuation in health, which is always higher in the evening, I could scarcely draw the line between the normal evening elevation in health, and the insidious approach of the fever. With Pauline I still endeavored to anticipate the onset of the disease. Acting on the suggestion of some of my professional friends, I commenced to register her temperature nearly two weeks before I perceived any indications of her being the next to fall sick. I might anticipate any theoretical conclusions likely to find lodgment in your minds as to the causation, by stating that the girl had been employed in a dry-goods store, and was brought home to take charge of the sick family. Upon her devolved most of the washing and cooking for the sick. While the younger children were out of the house nearly all day at play, she was busy with household duties, and was in this way more exposed to the infectious disease than her younger sisters, who seemed to contract it so readily. I found it most convenient to take her temperature at the time I visited the other members of the family, *i. e.*, between nine and eleven in the morning, and eight and nine in the evening. I never found her temperature above normal, until within four days before she was compelled to take to her bed. Three days before her prostration, the thermometer registered 102°, normal the following day; second day it was 101⅗°; the following day it ran up until it reached 104⅖°. Her temperature continued high for over ten days, ranging from 103° to 105°; then assumed the intermitting character so frequently noticed in the record of the other members of this family, after which the fever record had a gradual decline. By anticipating her attack of the fever, and registering her temperature for over a week, three days in which her fever was above normal, gave us part of the ascending scale of Wunderlich—yet does not supply the gradual ascent and the lengthened arc of the semicircle, which should describe the model typhoid temperature record.

I have hinted that the cause of this epidemic had a tangible existence. While it is not the object of this paper to touch upon the etiology of typhoid, yet it may not be without interest to mention the environments of this fated household. It is unusual to have seven cases of typhoid occur

in one family, and follow each other in such rapid succession; yet not until the third member of the family was prostrated, could an adequate cause be found.

The head of the family was an industrious carpenter, who resided, with his wife and five children (two older girls were not living at home), in a two-storied, four-roomed house, near Thirteenth and Columbia avenue. The house was quite comfortable for a small family, but not so for this one; hence they were crowded. Yet I have seen families packed in, and live free from disease, when there has been actually more to a room than in this family. The cellar was dry, drainage in a fair condition. A vacant lot of enclosed ground intervened between our family and the nearest neighbor on the north. This neighbor on the north was in the milk business, and for his convenience, he had excavated a pit in the vacant lot adjoining our family's cellar-wall, four feet deep, into which he had dumped the rubbish of the yard. The rain and snow, falling upon the decomposing mass of organic material, soon found its way through the intervening stone-wall, percolating its liquid poison into the cellar. This filth, while not all times sufficient to be recognized by the sight, was more frequently perceptible to the sense of smell. The pit could in no way impregnate the drinking-water of the family, for, as a precaution, I had all the water that was consumed for that purpose brought to them from a distant neighbor.

While we have mentioned the exceptional in the temperature record, we may also entertain a doubt of this rubbish-pit being the only factor in the family illness. The first case in the epidemic, Mary, æt. 13, was employed in a store; hence she was not in the atmosphere of the house as long as the mother, who was the only one who constantly lived in the poisoned house, and yet second on the list, and, while she had a severe attack, her illness was not so prolonged as the first. Again, Pauline, the eldest girl, came from another family, in perfect health, resided for three months in the infected house, exposed to every form of contagion, and was the last to succumb to the disease; and when finally she was prostrated, the fever ran a comparatively mild course.

In directing your attention especially to the peculiarities of temperature in the foregoing cases that ended in recovery, I wish now to contrast them with one that, while the temperature was under control, and lower than any of the foregoing, yet, without complications, it ended fatally.

A finely-built young man of 27, regular, but rather full habit, first complained, August 1, of intense headache, backache, indifferent appetite, and general disinclination to exertion. He left the city, against the wishes of friends, as well as myself, for a trip through the South. On the 3d he was taken violently sick; sent home, reaching the city August 4. At my first visit, same day, at 12 m., temperature was 104°; at 8 p. m., 104⅘°. On the sixth day he lost consciousness. His delirium was wild and pugnacious; constant mutterings. At the same time his temperature fell below 104°, and remained below for over a week. On the tenth day his temperature reached 104⅘°. From this point it fell, and remained under 103° until the fifteenth day, when it ran up to 104⅘°, at death.

It is unusual to find patients unconscious when the temperature is so easily under control. In this patient the only antipyretic measure used was the cold bath. None of the symptoms of this case were as severe as the group occurring in the epidemic; yet this case terminated in death, while all of the others, indifferently nursed and badly surrounded, made good recoveries.

While it has been my principal object to record these cases of typhoid, as departing in a measure from the temperature law of Wunderlich, I wish to call your attention incidentally to the following facts:

1. Six of the group of cases noticed in this paper were children, yet we had a severe course of the fever, and the temperature record commenced high, showing frequent irregularities. Wunderlich states, that in children, particularly in the younger subjects, the course of typhoidal temperature is somewhat irregular. The commonest of these irregularities is its extreme mildness; yet the temperature rises in the first days to a higher average than in adults; it passes more quickly into the remitting period, and defervescence is less protracted, but complications often occur, closely indicated by the temperature.

2. In the nine cases of typhoid, including mild as well as severe examples, we had four cases of intestinal hemorrhage. An unusually large percentage. Systematic writers on fever regard intestinal hemorrhage as a rare and grave symptom. While Liebermiester states that there is not a single symptom belonging to typhoid which can be characterized as pathognomonic, yet a tendency to diarrhœa is quite frequent and intestinal hemorrhage quite rare, in our cases we found the bowels confined in over half of the cases.

Dr. Broadbent looks upon constipation in typhoid as of sufficient importance as to entitle the fever to a distinct variety.

REMOVAL OF UTERUS AND OVARIES BY ABDOMINAL SECTION, FOR FIBRO-MYOMATA. DEATH ON TWELFTH DAY FROM SEPTICÆMIA.*

BY J. M. BARTON, M. D.

Mrs. K., æt. 31 years, was brought to me last September, by Dr. M. B. Dwight, of Jersey Shore, Pa. She was very pale, the face and lips being entirely colorless; indeed, the appearance of the patient suggested the presence of malignant disease. She had to be carried to her room on her arrival in this city. She had been losing more blood than she should for several years, and for several months she had a daily loss, frequently in quite large amounts, and was losing strength rapidly.

On examination, a large, hard, smooth, and freely movable tumor, evidently the uterus, extending three inches above the umbilicus, was found; by the sound, Dr. Dwight's diagnosis of a sub-mucous fibroid with extensive uterine attachments, was readily confirmed.

As the uterus was entirely out of the pelvis, as the attachments of the tumor occupied more than three-fourths of its entire circumference, and as the remaining uterine wall was much thinned, removal by the vagina was plainly impossible. I advised extirpation of the ovaries, if accessible, or of the entire uterus, if, on exploration, it appeared preferable.

The patient returned to her home, as she preferred to have the operation performed there, to which I agreed, as I considered the mountain air much more favorable for operation and after-treatment than the wards of a general hospital.

On September 30, I visited Jersey Shore, and removed the growth, assisted by Drs. Dwight and Cline, of that place; Drs. Detweiler and Youngman, of Williamsport; Dr. Armstrong, of Lockhaven; and Dr. Orville Horwitz, of Philadelphia.

Thorough antiseptic precautions were taken, the hands of the operator and assistants were washed in carbolic acid solution, all the instruments and ligatures were immersed in a similar mixture, the sponges were washed in a warm solution of the same acid, the abdomen of the patient was washed first with turpentine, then with soap and water, and lastly with carbolic acid solution.

I made an incision through the abdominal wall, midway between the umbilicus and pubes, about two and a half inches long, through which I readily drew the right ovary; the left, however, could not be reached. Finding the uterus free from adhesions, and movable, we decided to remove it. I increased the incision until it ran nearly from ensiform cartilage to pubes, carefully checking all hemorrhage by forceps and catgut ligatures before opening the peritoneum; the uterus was readily lifted from its bed and placed upright, the left broad ligament was attached posteriorly, and the left ovary laid against the spine, showing that it could not have been reached through the original incision. The intestines were held away from the uterus, and supported by large flat sponges, wrung out of warm carbolic acid solution. The broad ligaments were tied in sections with carbolized silk and Thomas's large clamp placed upon the neck of the uterus.

Surrounding the parts with sponges, to prevent blood entering the peritoneal cavity, into which so far none had escaped, the uterus and both ovaries were rapidly removed; there being but little tension on the pedicle, we decided to treat it outside.

The stump was trimmed so as to leave but little projecting above the clamp; it was transfixed by a large pin, and was seared on its cut surface by the actual cautery, the wound was closed by the interrupted suture introduced from within in the usual manner; it was not found necessary to make the "toilette of the peritoneum," as, thanks to the care of my assistants, no blood had been allowed to enter that cavity, and, indeed, but little was lost during the entire operation.

The uterus was seven inches in diameter, and nearly a sphere; it was occupied by a single fibromyoma, which was attached to the entire uterine walls, with the exception of a narrow channel, about two inches wide, running from neck to fundus; on section, it presented the usual appearance of such growths, except in its centre, where it appeared to have undergone sarcomatous degeneration. This suspicion was subsequently confirmed on microscopical examination.

The after-treatment of the case was in the hands of Dr. Dwight, from whose very complete notes I take the fallowing points:

The evening of the operation the temperature rose to 102.5°, the pulse to 120; under opium suppositories and occasional hypodermics of morphia, the patient was quite comfortable; she took nothing whatever into the stomach except small quantities of hot water, and had no vomiting. On the second day the thermometer rose to 104°, the maximum temperature observed.

On the third day she took some barley-water

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and in the evening some beef-tea, the general condition being improved and improving still more the fourth day.

On the fifth day (October 4) the bowels were moved by an enema: opium stopped; beef-tea, brandy, and warm milk were taken freely; the patient was quite comfortable.

On the sixth day (October 5), patient rested well during the night, takes warm milk every three hours; pulse stronger, 120; temperature, 101°; patient looks quite bright; natural movement of the bowels.

The notes of the seventh, eighth and ninth days are almost identical with the last one read, except that stitches were removed, and on the ninth day there is considerable pus coming from wound, and some swelling of the right parotid gland.

On the tenth day the swelling of the parotid gland increased; there were evidences of systemic poisoning; and on the evening of the eleventh day she died.

At the autopsy, there was no inflammation of intestine, there was no pus found in lungs, liver, or kidneys, though there was some in the abdominal cavity. This had probably entered a day or two before her death, and from it the blood-poisoning, which proved fatal, arose.

Hospital Reports.

PENNSYLVANIA HOSPITAL CLINIC.

BY DR. R. J. LEVIS, SURGEON.

Reported by C. Levis Bower.

Fracture of the Lower End of the Radius.

I bring before you to-day a fracture of the lower end of the radius. There are no fractures of bones of which a complete comprehension is more generally needed than those of the lower end of the radius. There is no other class of fractures in which, with the treatment ordinarily pursued, the apposition of fragments is so liable to be imperfect and to result in deformity with painfulness, defective innervation, and impairment of the utility of the limb. Perhaps there are no fractures which so often fail to be even recognized as these fractures; and I am convinced that their peculiar nature and the indications of their treatment are not sufficiently understood. I have seen more instances of dissatisfaction of patients with their medical attendants in regard to the results of these peculiar fractures than of any other, and I think that it must be the experience of every surgeon in active practice to be frequently appealed to an account of the more or less permanent disablement of forearm, wrist, and hand which so often follows the treatment as generally practiced. Such deformity and disability have also in a number of instances led to litigation in which the reputation of the attending surgeon has suffered discredit. That the result of the usual treatment of fractures of the carpal end of the radius, even by the most experienced surgeons, is considerable deformity and consequent disability, is admitted by the best surgical authorities. I will read what some of them say on the subject. Hamilton, in one of the editions of his work on fractures, states that of ninety-two instances of fracture of the lower third of the radius, sixty-six could not be claimed to have been cured free from perceptible deformity or stiffness about the wrist-joint. In some of these cases examined by him after the lapse of from one to twelve years, the wrist- and finger-joints remained quite stiff.

Prof. Gross said that this fracture is "often followed by permanent deformity and impairment of the functions of the wrist-joint," and "that from three to six months always elapse before the patient will have anything like a good use of his hand and fingers, owing to the remarkable tendency, in every case of such injury, in the resulting inflammation to extend to the synovial membrane of the digital articulations and sheaths of the tendons."

R. W. Smith, of Dublin, remarks, "that difficulties attend the treatment of this fracture may be inferred from the variety of modes which have been proposed to counteract the peculiar deformity which occurs when the lower end of the radius is broken."

Bryant, of Guy's Hospital, asserts that "the wrist-joint rarely recovers its normal movement after this form of fracture, some deformity permanently remaining, of which the patient should be forewarned."

J. R. Barton said: "I do not know any subject on which I have been more frequently consulted than on deformities, rigid joints, inflexible fingers, loss of pronating and supinating motions, and on neuralgic complications resulting from injuries of the wrist and of the carpal extremity of the forearm, one or more of these evils having been left, not merely as a temporary inconvenience but as a permanent consquence." He also speaks of "the embarrassment which every practitioner has experienced in his attempts to obviate eventual deformity and to preserve the functions of the fingers and to restore the motions of the wrist and forearm."

Mr. Callender, of St. Bartholomew's Hospital, in an article on fractures injuring joints, alluding to the unsatisfactory results of such injuries, remarks that, "such results are frequently referred, in some measure at least, to the treatment which has been adopted, but it will not be difficult to show that a great number of these hurts must have a comparatively unfavorable issue, however good the management which is bestowed upon them; still there remain many cases in which the recovery is not so good as it might have been, if only the original injury had been properly determined, and the right plan of treating it properly carried out. From either of these considerations, no fractures, perhaps, require more careful examination than those of the carpal extremity of the radius, for neither is their precise nature clearly defined, nor yet are their unsatisfactory

after-consequences sufficiently, as a rule, impressed upon patients." The same authority states that there are in the museums connected with the London medical schools thirty-six specimens of various fractures of the lower end of the radius, all of which are, if united at all, more or less badly joined together.

The form of fracture which is so liable to occur at the lower end of the radius, and which has such marked characteristics, has been somewhat differently located by various surgical authorities. Colles, of Dublin, who is entitled to the credit of being the first to intelligently describe the injury, locates it at an inch and a half above the carpal articulation. Hamilton describes such fractures as varying in location from half an inch to an inch and a half above the articular surface. R. W. Smith, of Dublin, locates the fracture between one-quarter of an inch and an inch above the joint, and makes a remark, which my own experience will endorse, that it always appears to be higher than it really is. Dupuytren's observations fix the fracture even nearer to the joint, as from three to six lines.

Malgaigne remarks correctly that there may be slight variations in such estimates in accordance with the age and stature of the subjects, which influence the length of the bone, and also from some crushing of the lower fragment by the force of impact. He also notices that there will be variation in the appreciation of the exact position of the fracture, in accordance with the manner of measuring, as owing to the obliquity of the articular surface, the measurement upward from the styloid process, the distance may be one inch, whilst if measured on the inner side it may be but one-third of an inch, and if estimated on the back of the bone about twice the latter distance. The general understanding, however, of such measurment on the living subject has probably been estimated on the back of the articular edge of the bone, which is in the recent injury usually so tilted up as to be quite apparent. Prof. Gross gives it as his opinion that the injury is generally situated low down, within a short distance of, if not actually within, the joint, but is sometimes as high as an inch or an inch and a half above the articulation. Sir Astley Cooper locates the fracture at an inch above the styloid process. Nelaton's opinion is that in the immense majority of cases the bone is broken two-fifths of an inch from the end. Mr. Erichsen fixes it at half an inch.

With reference to the position of the fracture as described by the late Dr. John Rhea Barton, it will be noticed that he merely described, on hypothetical grounds, a fracture of the posterior articular edge of the bone, in which, as he expresses it, "a quite small fragment is broken from the end of the radius on its dorsal side," and is carried upward and backward with the consequently displaced carpus.

Practical experience of careful observers has not, I think, confirmed the observations of Barton. I have never been able to diagnose such a fracture with its accompanying displacement in the living subject, nor have I found it possible to produce it by any kind of violence that I could use on the cadaver. In this view I accord with Hamilton, who states that the fracture as described by Barton, has never come under his observation; and he believes that the description of the injury, which has so generally associated the name of the observer with fracture of the lower end of the radius is incorrect, and that Barton mistook for it the ordinary transverse fracture near to the articular surface of the radius, or possibly a fracture of its styloid process alone. After a number of experiments on the cadaver, with force variously applied, I have not been able to produce the line of fracture described by Barton.

In this country it seems to be the habit of surgeons to incorrectly associate the name of Barton with the usual and very characteristic fracture of the lower end of the radius, an association that cannot be properly made. I am inclined to believe that the only form of fracture that he attempted to describe is one which for want of later surgical and pathological authentication remains as but ideal or mythical, and is not entitled to a separate recognition. If the name of Colles is not used to indicate the injury as ordinarily seen, it should be simply designated by its location as *fracture of the carpal extremity of the radius.*

I am convinced from my own observations upon the subject, which have been carefully made, that fracture of the lower end of the radius, which is attended with such peculiar deformity, and with which every surgeon is familiar, is almost invariably located between a quarter and three-quarters of an inch above the articular surface of the bone.

One of the reasons why the bone breaks so generally within a short distance of its lower extremity, may be found in the fact that its texture at that portion is almost wholly of cancellated tissue, the compact tissue nearly disappearing within three-fourths of an inch from the articular surface. Another cause of weakness is the loss of its cylindrical form, which best resists external force, and is spread into a triangular shape. The force which usually breaks the lower portion of the radius is ordinarily from falls, and is received on the upper part of the palm of the extremely extended hand, in a direction more or less from before backward. The bone is here curved with the concavity on the palmar surface, and the force is spent on the inside of an arch which inclines to fracture the most readily at the point of its greatest curvature on the highest part of the arch, which is about half an inch above the anterior edge of the articulation. When the body falls violently forward the hand is instinctively projected and receives the impact whilst in a state of extreme extension, and bends backward at the wrist-joint to such a degree that the force is communicated to the radius through the palmar carporadial ligaments in a direction almost transverse to the long axis of the bone. Such force would naturally incline to produce fracture in a transverse direction, and I am sure that the usual fracture is ordinarily so effected, rather than, as is generally asserted, by force applied in the long axis of the radius. I am inclined to the opinion that any force violently extending the wrist extremely backward is liable to produce the ordinary fracture of the lower end of the radius, and I have demonstrated that the fracture may be produced on the cadaver by such extreme and forcible backward extension alone.

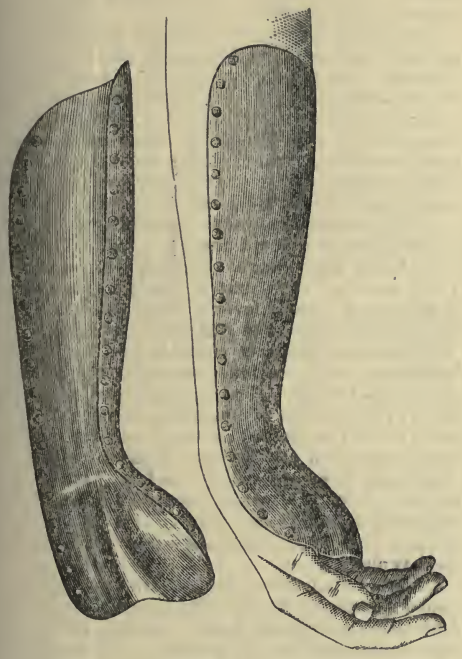
Bouchut asserts, in his observations on luxations of the wrist, that in his efforts to produce dislocations of the radio-carpal articulation in the dead subject, he only succeeded in causing fractures of the lower extremity of the radius. Thus it is shown that an action of simple forcible leverage can cause the peculiar fracture, as well as the more direct impact of force, and may, in frequent instances, be an important factor in the production of the injury. The testimony of nearly all surgeons who have written upon the subject is that in fracture of the lower extremity of the radius the direction of the line of fracture is almost invariably transverse. Examination of by far the greater number of cabinet specimens of the fracture in the museums of this country and of Europe verifies the same observation. The fracture, it is true, is liable to vary in direction and other characteristics with any of the numerous causes which may produce it. Much comminution may occur as in a fall from a great height, when the extremity is thrown forward to protect the body, and I have seen an instance in which the lower end of the radius was much shattered by being crushed under the wheel of a heavy wagon.

Remember then the mechanism of this fracture. It may be described as a simple wrenching of the anterior carpal ligament which is too strong to be torn, hence the bone gives way instead of the ligament. The displacement is an upward and backward one of the lower fragment. The deformity is a depression on the palmar surface, and an elevation on the dorsal surface; this is known as the silver fork deformity. It is usually very characteristic, and was so in the case presented before the resident surgeon reduced the fragment. Displacement of the lower fragment may not exist at all, or it may be to the extent of complete separation from contact of the broken surfaces, varying with the amount of force appplied and with the retaining influence of the surrounding dense structures. The usual treatment of fracture of the lower end of the radius is by what is known as the Bond splint, which is a straight splint with a block on the end for the hand to grasp, and in such a position as to turn the hand slightly to the ulnar side.

I maintain that no crooked bone can be treated on a straight splint. See what the tendency of this splint is: it throws the lower fragment upward, which is exactly what we are trying to overcome. You can obtain good results with this splint if you will place a firm pad of lint or cotton under the end of the upper fragment to correspond with the curve of the radius, and a pad on the dorsal surface over the lower fragment. But the trouble in this is the pad becomes displaced, and slips forward, and throws the lower fragment upwards. You can always tell at a glance the deformities that follow the fracture of the lower end of the radius treated on a straight splint and fractures not properly reduced. The palmar surface is flattened, there is stiffness in the joint, and the hand has a very helpless expression. There is usually neuralgia, from pressure on the nerves, disturbed circulation from pressure on the vessels, and considerable disability of the hand. The first essential in treatment of fracture of the lower end of the radius is the complete reduction of the displacement. The reduction of the fracture can usually be thoroughly effected under anæsthesia, by *strong extension applied to the hand, associated with forced flexion of the wrist, and with pressure applied directly on the dorsal surface of the lower fragment.*

Unless vertical splitting or comminution of the lower fragment exists, the maintaining of partial flexion of the wrist, with pressure of a pad on the dorsal surface of the lower fragment will prevent return of deformity. In the treatment of fracture of the lower end of the radius it is essential that proper allowance be made for the curvature of the anterior or palmar surface of this part of the bone. This is insured in the splint which I have devised, which follows correctly the radial curvature; and the fixing of the thenar and hypothenar eminence of the hand in their moulded beds, maintains the splint immovably in its correct position with reference to the radial curve. To neglect of complete primary reduction of the displacement of the lower fragment, and to inefficient restoration and retention of the normal radial curve, are due the frequent unfortunate sequences of this fracture. This patient was treated by replacement of the fragments by the manœuvres described, and his arm put upon this moulded splint of metal. The splint is made of copper, so as to be readily conformable by bending to suit the peculiarities of size and form of forearms. The series of little pointed elevations along the edge is for the purpose of keeping the bandage from slipping. It is tinned to prevent oxidation. The splint will usually fit the forearm so accurately that but little padding will be

required, and a piece of lint, or of cotton or woolen flannel is all that is necessary for its lining. No dorsal splint is needed, but, as before



mentioned, a small pad will, in most cases, be required over the dorsal surface of the lower fragment. For retention of the splint, an ordinary bandage, two inches and a half to three inches wide, is all that is necessary. This man was dressed by Dr. Barber. I will remove the dressing and see if it has been properly reduced. I see that the deformity is overcome. I now feel that the arch of the radius is perfect, which is the test of the proper reduction. The splint will now be re-applied, and this man can go about and attend to his business. One of the advantages of this treatment is that the patients can attend to their business without much inconvenience. I have had such cases in private practice; one, a bookkeeper, continued writing; another, a bicycler, who took a "header" and produced this fracture, went on with his riding after the fracture was dressed; and also sewing-women who could continue their occupation with very little difficulty. This fracture is very common. I came into this hospital one slippery morning and found six large, stout women sitting in a row, suffering from fracture of the lower end of the radius. They had fallen upon the ice and sustained this injury, which is, probably, the most frequent of all fractures.

Anal Fistule.

This woman is suffering from an anal fistule. An anal fistule is a fistulous tract in the ischio-rectal space, which is the space situated between the rectum and the tuberosity of the ischium, and is filled with adipose tissue. An anal fistule is always the result of an abscess situated in this space, which has opened through the skin or into the rectum, or perhaps in both directions. When a fistule has two openings, one external and the other in the bowel, it is called a complete fistule. When there is an external opening, but no internal one, it is called a blind external fistule. When there is an internal opening, but no external, it is called a blind internal fistule. This distinction is unimportant, because a fistulous tract of long-standing has usually both openings. Blind internal fistules rarely exist; I do not remember ever to have seen one. The error in supposing that external fistules have no internal orifice is due to the fact that the internal opening is not sought for in the right place. It is looked for too high up in the rectum; it is universally situated just above the external sphincter, where your finger will feel a little depression. I pass this probe into the external opening, and you see that it emerges inside just above the sphincter. I now pass a grooved director along the same tract, and with my finger bring the end out at the anus. With a scalpel or bistoury passed along the groove, I cut through the sphincter and other tissues, and thus convert the fistule into an open wound, thus liberating the director. The operation is simply to divide the tissues between the external and internal openings. This woman has also an anal fissure, which is a chronic linear ulcer in one of the folds of mucous membrane, kept open by the continuous action of the sphincter muscle. Anal fissures are curable by putting the parts at rest and then allowing cicatrization to take place. This can be done by stretching or dilating the sphincter with my thumbs in the rectum. This procedure causes slight laceration of the mucous membrane at the seat of ulcer, and paralyzes the sphincter so that granulation will follow and the ulcer become healed. Anal fissure gives excruciating pain *after* the passage of a stool, because of the spasmodic contractions of the sphincter. Hence, you can nearly always make a diagnosis of anal fissure by this occurrence of severe pain *after* defecation.

Having now laid open the fistule, I pack it with a tent soaked in carbolized oil. Having stretched the sphincter and scraped the fissure with my finger nail to get a new surface upon the ulcer, I shall expect the symptoms of anal fissure to disappear.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Discussion on Typhoid Fever. (*See pages* 101 and 132.)

Reported by G. Betton Massey, M. D.

Dr. J. C. Wilson, in opening the discussion, said: "The paper of Dr. Hollopeter is very interesting and suggestive. It touches upon or suggests almost every important clinical problem relating to this disease. Its free discussion would be impossible in one, or indeed in many evenings. Two or three points call for special consideration:

"First. The typical temperature curve, and its variations. The well-known course laid down by Wunderlich as a standard, is met with perhaps less frequently than strongly-marked variations. Nevertheless, a knowlege of that course is the key to the understanding of the variations from it.

Wunderlich, after describing the course of the first four or five days, lays down the law that every case which does not conform to this temperature type is not typhoid fever. This dictum has been the source of manifold errors in diagnosis. No more fallacious statement could be made. Cases of undoubted typhoid fever constantly occur, in which the range of temperature fails to conform to the typical curve, not only in the beginning of the attack but throughout the whole course of the disease. In fact, cases sometimes occur the nature of which is fully established by the complexus of symptoms and the existence of local epidemics, in which the temperature remains throughout even *sub-febrile*. The singularly labile temperature in this disease, rising and falling, as it does, under very slight disturbing external influences, makes it a matter of surprise, not that the temperature is not always typical, but rather that it ever closely conforms to the type.

"Second. The inversion of the diurnal range, of which Dr. Hollopeter has given two instances, is not common. I have seen cases of it, to which I will briefly refer. I am not aware that any adequate theory of this curious clinical phenomenon has yet been advanced.

"Third; house epidemics. The second part of the paper, which considers the details of this curiously-circumscribed and localized outbreak, is very interesting and important. It is by the study of such house epidemics, that a true insight into the etiology of the disease is to be gained. I do not agree with the author of the paper, in ascribing the disease in the infected house to the percolation of waste-water, through the cellar-wall, from the adjoining premises. In order to establish this theory, it would be necessary to show, first, that such percolation, if capable of producing this disease, had not been going on for an indefinite time prior to the attack; and second, that typhoid fever had existed in the neighbor's house, or at least that the dejecta of typhoid patients had been thrown into the pit from which the drainage into the cellar ran. These facts have not been shown. On the other hand, it appeared clear enough that the first case, the young woman, who had come home sick from another house, had introduced the disease. An investigation of the house and neighborhood from which she came, would doubtless shed light upon the subject. House epidemics are numerous in Philadelphia. Certain houses, however, seem to be the abiding place of the infecting principle, seeing that cases occur in them from time to time during a series of years."

Dr. E. T. Bruen: "I have been very much interested in Dr. Hollopeter's paper, and also in the remarks of Dr. Wilson. I agree particularly with the portions relating to the contagion. Two cases recently seen by me illustrate this: a washerwoman took home the clothes of a typhoid-fever patient. Within a week, her two children drooped and became feverish. They were taken to the Children's Hospital and one died there with no autopsy; the other was taken home, where it died, and I made a post-mortem examination. The typical conditions were present. No other cause was known.

"I am also interested in what Dr. Wilson has said about alterations of temperature from slight causes. We notice the same thing in diseases of the liver, in which cases the thermal wave fluctuates with the ingestion of food. If we admit these causes, I think we can readily admit psychic influences in the same role.

"In diagnosing typhoid fever, it is to be distinguished from malarial fever and catarrhal fever. Malarial fever is *sui generis*, and can be controlled in this latitude by quinine. I believe that malaria will modify the initial stages of typhoid fever. Thus one of the groups of cases called typho-malarial takes its name. Neglected malarial fevers form another group of so-called typho-malarial fever, which is not a disease *sui generis*.

"I have seen many cases of mild typhoid fever —the so-called typhoid ambulatorius. Throughout, these cases have shown a temperature of 100°, not over 100°, but I would not make the diagnosis of typhoid fever if the temperature after the fifth day fell below 100° in the evening.

"Catarrhal fever is characterized by peculiar weakness, with various catarrhal conditions of lungs and bowels. The temperature runs from 99° to 100°, and is at times almost normal. Such cases should be classed as catarrhal fever, and are very similar to the specific forms of influenza. They may be recognized by the fact that the temperature is very irregular, and it is impossible to control this feature by quinine. I think these are the cases which have often been confused with mild typhoid."

Dr. Baldwin: "Dr. Levick sometime ago published a paper in which he spoke of a family predisposition to typhoid fever, as well marked in some families as that of phthisis. I should like to ask Dr. Wilson if he has noticed any cases of like character."

Dr. B. Trautmann: "Niemeyer speaks of inverse temperature in typhoid fever, and says that these cases end, generally, fatally. This seems to disagree with the statements made here to-night. I have at this time a case showing this curve, in which a hemorrhage of the bowels followed this morning."

Dr. Kevin: "I have also a case now under treatment showing inverse temperature."

Dr. Arthur V. Meigs: "With regard to the etiology, I do not think Dr. Wilson's position is well taken. In the face of the authority of Murchison, that typhoid fever may arise *de novo*, it seems to me hardly fair to assume the germ theory as proved, although the medical mind seems at present to be inclined in that direction. Typho-malarial fever has always seemed to me a bad name, for it misleads; it means, in its proper sense, a hybrid, both malarial disease and typhoid fever co-existing in the body at the same time."

Dr. W. A. Edwards: "In the case of the young man under my care whose temperature presented the peculiarities spoken of, a diagnosis of double quotidian was made. On the eighth day, signs of typhoid fever set in, and lasted four weeks; then again there was a typical double quotidian. If the case had not been so diagnosed, it would have been put down as a case of typhoid fever with inverted temperature. This, with other cases, I published in the Medical and Surgical Reporter, November 17 and 24, 1883, and mention it to-night to call attention to the fact that all cases of inverted temperature in typhoid fever

are not due to the typhoid entirely, but frequently to a complication, this complication occasionally being almost unrecognizable except for its effect on the temperature."

Dr. Wilson: "A clear comprehension of the mode in which typhoid fever is propagated from previous cases, by means of a specific infecting principle, is of the utmost importance. Murchison, it is true, held that it might arise *de novo*. Nothing in the literature of the subject is more brilliant than that great author's advocacy of this view, but the student of the subject knows that it was asserted in Murchison's day, with a vigor scarcely inferior to that with which it has been defended here, with more success. To Dr. Wilson Budd, of Bristol, is due the credit of showing that Murchison's view was untenable. To-day it is no longer entertained."

Dr. Meigs: "I did not pretend to deny that a single case of typhoid fever may be the focus from which any number of others may arise. I merely contended that in the face of Murchison's opinion that the disease may arise *de novo*, we should be careful how we assume as proved the germ theory."

Dr. J. Solis Cohen: "I do not rise to speak directly to the subject of the paper, as I do not see typhoid fever except in hospital practice. Many years' observation has convinced me that sudden rises of temperature in typhoid fever, as in other diseases, are often due to obstruction of the bowels, even though diarrhœa may exist. A small dose of castor oil will usually quickly relieve the bowels and reduce the temperature. The ordinary milk diet is then to be modified by the addition of lime-water, or by substituting boiled milk for cold. My residents have for years had general instructions to pursue this plan without awaiting my daily visits.

"The family epidemic recorded, reminds me of a similar one in a German family, the members of which were distributed to several hospitals, three of them coming under my own care. A marked local epidemic occurred among the sailors on board the Russian war vessels which, several years ago, were lying off the wharf at Kensington, some sixty of whom came under my care, with the most typical demonstration of the true typhoid curves that I have ever seen. The temperature charts looked as though they might have been copied from a text-book. The cause, in these instances, was the drinking of water from the Delaware river, which the sailors, following an old custom, dipped from the side of the vessel to within a few feet of the open outlets of sewers.

"I was very much interested in the story of the poor washerwoman's family. Our duty, in the presence of contagious disease, is very clear, and is too much neglected by physicians. We should not allow our patients to send clothes out to be washed until they have been thoroughly disinfected. Indeed, rather than subject a family to contagion, let the clothes be burned. Many a poor washerwoman in this city brings typhoid fever, diphtheria, and other diseases, to her household, through the carelessness or indifference of her customers."

Dr. Hollopeter, in closing the discussion, said: I had felt a certain uneasiness in presenting my cases of *inverse temperature*, as I could obtain but little authority for the same, yet I have recorded the simple facts, and am glad to learn that other members have also noticed similar cases. In a future paper I hope to give more of the literature of the subject. In answer to Dr. Wilson, as to the causation of the house epidemic, I would state that Mary, the first to take sick, was, at the time, not living at home, yet she frequently came home for a few days at a time. The family she was working in were all healthy.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

At the meeting November 5, 1884, Dr. H. C. Wood made some

Remarks upon Chronic Contracted Kidney with Normal Urine, Including Acute Gouty Dementia, with a Perforating Recto-vaginal Ulcer, and Death from Sudden Pulmonic Œdema,

Saying: Mrs. L., whose case forms the basis of the present article, was a very intelligent lady, about forty years of age, the mother of five children, of gouty ancestry. At regular intervals of four years she was accustomed to have very violent acute attacks of gout or rheumatism, associated with great systemic disturbance and depression of spirits. As the last gouty sickness was in the early spring of 1880, she was in the spring of the present year in great fear of another attack, and an attempt was made under the direction of her medical adviser, Dr. Tomlinson, to ward off such sickness by careful diet and free horseback exercise. For the early notes of her case, I am indebted to Dr. Tomlinson. An exposure to cold during the night of April 20, was followed by severe coryza, vague pains, and great hebetude, with a very pronounced desire to sleep. Even when moving about she seemed unable to keep her eyes open. Under treatment she improved temporarily. Dr. Tomlinson writes concerning this period: "I could discover nothing wrong with the urine, which she passed in usual quantity. A week later she began to have difficulty in expressing herself; she would use irrelevant words and then correct herself; her gait also grew uncertain, and in walking she would pitch forward as though she were going to fall. April 28, Mrs. L.'s mother died; Mrs. L. was greatly shocked, and rapidly became worse; she was greatly depressed, lachrymose, hysterical, had hallucinations, and ceased to recognize those around her. She lost her appetite, and became constipated. The uncertainty of movement now affected the arms, and there was great failure of memory. Her symptoms continually deepened, the speech became more and more incoherent, until it was a confused senseless jargon. She now refused food, and finally staid in bed in a state of perpetual stupor. The tongue was heavily coated, the breath very offensive. There was no elevation of temperature, or pains, or local soreness."

I was first called to see Mrs. L. May 8; I found her in bed in a sort of stupor, out of which she was with difficulty wakened at all. Getting her partially aroused, I ordered the nurse to put on a wrapper; then commanding and leading the patient, succeeded in getting her to the head of the stairs, then down stairs. It was necessary to

hold her very forcibly, as every few minutes her knees would seem to give way, and she would "flop" to the floor. All this time she said nothing other than incoherent protestations. When she finally was in the parlor I upbraided her loudly and severely for her dishabille and general appearance. On asking her if she was not ashamed of herself, she said she was, and that she had better go up stairs and change her clothes. On my acquiescing, she stood up, and taking the hand of her nurse, walked upstairs, dressed herself with assistance, and came down, recognizing people, but saying very little. I left her eating her breakfast. Her urine was examined at this time; it was loaded with uric acid and urates, although she had been eating very little, had a specific gravity of 1024, and contained no tube-casts, and not the faintest trace of albumen.

She came to the city May 11. She was now completely demented, knowing no one and not recognizing in any way her surroundings. The pupils were contracted and immobile. She ate no food except milk, which was forcibly given her at regular intervals. Much of the time she lay in a stupor in bed; then she would have spells of wandering restlessness; again, distinct maniacal outbreaks, accompanied by violence and indecent speech, or sometimes attacks of muttering delirium. The tongue was brown, dry, coated to the last degree. The teeth were loaded with sordes; the breath horribly offensive; the bowels were obstinately constipated. She was treated with purgatives, quinine, chloral, and morphine when excited.

During these days there was general tenderness, so that whenever she was taken hold of roughly she would scream out, even rousing from a stupor. There was also on movement distinct pain not located in the joints, but seemingly in the muscles. There were very bad hemorrhoids, and at times the patient lay stupid but moaning, with knees drawn up as though there was abdominal pain. The pulse was quick, never much under a hundred, small and feeble rather than strong. Her mental condition grew worse, she took no note of anything, had to be catheterized, etc.

By May 16, the general tenderness had become very pronounced; the pupils were dilated and movable; the intelligence somewhat improved, in that she began to take notice. Salicylates and digitalis were at this time being used freely. On 17th, severe diarrhœa with involuntary passages set in; also the pulse altered suddenly its character, becoming excessively irregular, from 110 to 150 per minute, with beats of all sizes and rates, and many complete intermissions. General tenderness very marked. Auscultation of the heart showed the first sound very weak over the right base; at the left apex the first sound was very weak, the second decidedly accentuated. Over the middle cardiac region the sounds were singularly confused, with a peculiar watery and occasionally grating sound, "believed to be cardiac friction, but no clear positive to-and-fro friction rale." [Note at the time.] A blister was applied over the head and one over the heart.

May 18, menstruation had been established; the pulse had become perfectly regular, 100, and the peculiar middle cardiac sound less distinct. Her mental condition so far improved that she indicated when she desired to pass water, but she could not give a coherent answer to the simplest question.

On the 20th, she, when roused, answered simple questions with some rationality. Severe diarahœa again manifested itself, with involuntary passages, and lasted many days, indeed, off and on, almost to the end; remedies simply kept it in check. There were no maniacal outbreaks, and a slow but progressive improvement in her mental condition began very distinctly directly after the violent diarrhœa of the 20th. The first change was in the recognition of her husband; then when she had a desire to stool; she would insist on getting out of bed to the commode, although she never said why she got up. Then she resisted food and medicine, clearly because she had a will not to have them. On the morning of the 20th she took food herself, knew where she was, and wondered greatly as to the way in which she had got there, having no memory of past events.

June 23 it was first noticed that something was wrong with the vaginal discharge, but a vaginal examination failed to detect any abnormality. On the morning of June 25, fæces were plainly passed per vaginam, and there was discovered a perforation of the recto-vaginal wall very low down, sufficiently large to admit easily the whole forefinger into the rectum. The edges were soft and not well defined. There was no hemorrhage, local swelling, or pain during the formation of this opening, and it was not distinctly sore.

The mental condition of Mrs. L. continued to improve until the first of June. At the same time her tongue cleaned and her breath became sweet. June 1 she was entirely rational, recognized her surroundings and friends, servants, etc., in their proper relations. She spoke very sensibly about her own illness. The memory was very much improved, but by no means normal, and there was an absolute lack of power of mental exertion; but the only thing a casual observer would have noted as peculiar was the character of her voice, which remained very unnatural.

The first indication of a relapse occurred about the first of June, in a renewed coating of the tongue; then she began to talk irrationally at night, and her memory rapidly to fail. Then a tendency to drop or elide words from her sentences came on and was very pronounced. Her talk in the night began to be irrational and incoherent. At times she was quiet during the day, at other times very restless. At night she was very wakeful and restless, getting out of bed, wandering about rooms, etc. Much of the time she had an almost uncontrollable desire to pick at her nose and genitals; some days she refused food, others took it. The pulse ranged from 100 to 120, and her physical strength distinctly increased.

From this time onward her mental state deteriorated rather than ameliorated. She lost power of knowing those about her, although she still recognized her husband; the memory was entirely lost; in a word, she was in a condition of almost complete dementia. July 18th the breathing became suddenly accelerated, and some fine subcrepitant rales were heard posteriorly; on the morning of 18th her breathing grew much worse;

the whole upper lobe of right lung was full of fine crepitation, the left lung also containing rales. This continued for two days with some slight dulness of percussion on left apex, and then gradually subsided. Some days after this she had an equally sudden attack of œdema of the feet. June 24, she was taken about 11 p. m. with violent dyspnœa, accompanied by fine crepitation anteriorly and superiorly in both lungs, and almost complete absence of breath sounds over the posterior lobes. The dyspnœa steadily increased, and she died asphyxiated after twenty-four hours of struggle.

Autopsy.—Kidneys large, plainly in the early stage of chronic interstitial nephritis. Other abdominal organs normal. Heart somewhat hypertrophied; valves normal. Much excess of fluid in pericardium, but no exuded lymph. Lungs highly œdematous; considerable peritoneal as well as pleural serous effusion.

Brain. — Basilar arteries; walls very much thickened, sufficiently so to distinctly interfere with lumen; smaller arteries showing signs of similar endarteritis; the upper and to some extent the basal sub-membranous spaces everywhere distended with exuded fluid; fine vessels of the membrane somewhat congested; a very little lymph in some spots in the membranes. Brain substance very anæmic; the convolutions appeared shrunken; consistence normal, no spots of softening or macroscopic changes to be detected; microscopical examination of the convolutions failed to demonstrate anything abnormal, although the cells were perhaps more granular than normal.

There are certain points about this very remarkable case to which it may be worth while to direct the attention. The cause of the dementia cannot positively be asserted; but I am very strongly inclined to think that it was, at least, in part due to gouty irritation.

It seems to me well established that gout is capable of causing almost every form of insanity; indeed, insanity is only an increase of the mental conditions frequently seen in lithæmia. Carrol in 1859 said, "gouty mania is occasionally seen," and in 1875 Dr. P. Berthier (*Des Nevroses Diathesiques*, Paris,) published a collection of forty-six cases of nervous disease attributable to gout: one, hallucinations; one, migraine; four, tetanus; three, chorea; one, hypochondria; seven, epilepsy; one, paralysis, and twenty-six of mental affection including in these dementia, melancholia with stupor, mania. Although in some of these cases the evidence is not at all positive that gout was the *materies morbi*, yet in others the relation seems to have been clearly made out.

(*To be continued.*)

Editorial Department.

Periscope.

The Treatment of Lupus by Erasion or Scraping.

Dr. J. Herbert Stowers having obtained his most satisfactory results from these methods, thus writes about them in the *Brit. Med. Jour.*, Jan. 3, 1885:

The process of erasion advocated by Volkmann is carried out by means of a small hollow and elongated spoon, or scoop, with a moderately sharp edge, set in an ivory or bone handle. The special advantage is, that when the scoop is applied with considerable force, all the diseased tissue, or cell-growth, which is exceedingly vascular and friable, immediately breaks down, and is removed, while the healthy surrounding structures of the skin are too dense and fibrous to be included in the operation.

Those who have had experience of this method, will concur as to the remarkable way the soft, spongy, boggy tissue yields to the scoop, and how much more certainly can the extent and depth of the disease in this manner be estimated. All the cases I have treated thus have have been of long duration, and the new growth in each has existed over an extensive area.

The operation should not be undertaken except with the aid of an anæsthetic, for much of its after success depends upon the complete removal of every tubercle, and, consequently, occupies a considerable period of time. With so vascular a structure also, much hemorrhage results which should be entirely arrested before the solid nitrate of silver is used. I repeat—for it cannot be too carefully noted—that thorough eradication of the abnormal growth must be secured before the scoop is laid aside. In several instances I have operated upon large masses of disease situated over the great vessels of the neck, and, despite the force required, I can truly assert that, with even moderate care, no danger occurs of wounding them.

When the process of scraping is completed, and the hemorrhage arrested (local depletion being, doubtless, an aid to results), the serous discharge escaping from the wounds should be carefully soaked up with clean blotting-paper. Attention to this latter point will obviate the risk of the dissolved caustic running over the surrounding healthy integument, and so adding needlessly to the suffering of the patient.

It is necessary that the nitrate should be pushed deeply into the holes and interstices left by the instrument; in fact, it should be made to burrow into the tissues quite as extensively and deeply.

Considerable inflammation of course follows, which assists ultimate absorption; but the intensity of the pain does not last nearly so long as that attending the use of other caustics.

The parts should be dressed with lint well saturated with carbolized oil; the next day more oil being allowed to run under the dressing. The

second day after the operation, when suppuration has commenced, fresh carbolized oil-dressings should be applied, and so on daily. So severe is the smarting if water be used, that it is preferable, until the discharge is considerable, to cleanse the part by gently rubbing with lint dipped in olive oil, to which a drop or two of carbolic acid may be added. Later, when the sloughs are separating, a weak carbolic acid lotion is advisable for the same purpose, and may with advantage be used with a syringe.

In the cases under my care, which have been, so far, attended with permanently good results, it was necessary to repeat the operation at intervals varying from six to eighteen months; indeed, in some, several repetitions have been compulsory. But I contend, and that very strongly, that, if every new tubercle be immediately attacked, the instances will be few and far between, if any, in which, with the addition of appropriate internal constitutional treatment, the tendency to new development will not be outmatched.

The destructive results of this rebellious affection are too well known to require a word more in this direction; suffice it to say that, in five cases, at least, I have secured noses marked now with a relatively limited scarring, which would otherwise (if left without local treatment) have broken down by extending disease and secondary ulceration, to the production of irremediable and hideous deformities.

The natural tendency to recur must never be accepted as sufficient reason for not contending again and again with the disease until that age or condition of health be reached which will secure lasting and permanent immunity.

I would recommend, not less strongly, that any neighboring tissue, while suspicious in character, though not readily breaking down under the scoop, should be freely submitted to multiple punctiform or linear scarification, combined with a liberal use of the solid nitrate of silver.

Three cases alone, taken from my note-book, will suffice to illustrate practically the value of the above treatment, and with these I conclude:

Case 1. Emily D., aged 20 in July, 1883. Extensive lupus of nose. Residing at Chislehurst. Duration eight years. Four operations under ether: one in 1881; two in 1882; one in 1883 (February). No return up to present date. Cicatrices well formed and healthy.

Case 2. Anne K., aged 27 in 1877. Residing in Bedfordshire. Extensive lupus of cheek. Duration twenty years. Two operations under ether: one in January, 1881; one in 1882. No return up to present date. Parts look quite healthy.

Case 3. Elizabeth C., aged 19 in 1880. Lupus of nose. Duration nine years. Three operations during 1880 and 1881. Perfect scar-tissue now remaining. No evidence of disease returning.

Nerve-stretching for Sciatica.

Dr. A. B. Atherton gives the following instructive case in the *Canadian Practitioner:*

1882, September 8. G. E. G., aged 40, male, minister, not generally very robust. One or two members of family have had phthisis. Seven years ago suffered for several months from sciatica in left limb. Also four years ago had an attack of pneumonia or pleurisy, or both, which laid him up six or seven weeks. Eighteen months ago sciatica returned, and in spite of all sorts of remedies, it has grown worse, till of late it has interfered very materially with his ministerial duties. Morphine relieves the pain of severe paroxysms, but it causes so much nausea and vomiting that he dreads its use. Rest relieves, and motion increases, the pain and soreness. As a rule he is able to sleep pretty well at night, but he is wakened when he attempts to turn in bed. He has lost more than twenty pounds of flesh, weighing now less than 120. When a paroxysm of pain occurs, he is often troubled in passing water. Pain is most severe at point of exit of nerve through greater ischiatic foramen, radiating from this upwards over side of pelvis and down thigh. Also often feels pain in calf of leg and foot, accompanied with numbness and coldness of part. Has worn, of late, a chamois skin on the left limb to protect it from the cold. Has used cane in walking for some months, and leans considerably to right side when doing so. Has been troubled very much with dyspeptic symptoms since his illness.

On examination there is found considerable wasting of limb in its whole extent, the calf and thigh measuring one-third of an inch less than their fellows. Also muscles are soft and flabby. Tenderness complained of along line of upper part of nerve. Bowels always regular.

3 p. m. Operation. Chloroform given. Incision made from over lower border of gluteus maximus downwards, and a little inwards, four inches in length. The long head of the biceps was thus brought into view, and on turning this aside the sciatic nerve was reached. I now hooked my finger beneath the latter, and gave it two or three vigorous pulls from both above and below. There was a sensible yielding of the nerve in its lower part, but little or none in the upper.

Carbolic acid and alcohol (1 to 10) now applied freely to raw surfaces, and horse-hair put in for drainage. Silver and catgut sutures used and carbolized gauze and salicylic silk applied as a dressing.

September 9. Slept several hours last night without opiate. Feels very little pain, and he thinks he can move more easily than before operation. Pulse 88; temperature 99.8°.

September 11. Doing well. Appetite good. Pulse 80; temperature normal. Dressing changed under carbolic spray this afternoon. Horse-hair removed from wound. Only a slight bloody discharge on gauze.

September 12. Expresses 'himself as 'more free from pain than for a year past. Bowels have moved regularly since operation. Pulse 76; temperature 98°.

September 15. Doing well. Pulse and temperature normal. Wound again dressed. All sutures removed but three. Wound about healed. Adhesive plaster and dry dressing.

September 17. Remaining sutures removed. Wound healed. May get up and dress and lie on couch during day.

September 19. Since getting up, he feels some soreness all along back of limb, as if a "cord had been strained." Walks about, however, with the aid of a cane, and feels little, if any, of old pains.

October 9. Some soreness complained of still along course of nerve, but otherwise is doing well. Has gained six or eight pounds since operation, and walks much more erectly than before.

October 25. Returned home to Annapolis, Nova Scotia, to-day. Soreness along line of nerve is nearly all gone.

1883, May 6. Patient called to see me while on a visit to Fredericton. Has no appreciable halt now in his gait. Weighs 135 pounds. Says that he occasionally feels slight pain over left ilium, but does not mind it. Limb is now same size as the right.

Koch on the Comma-Bacillus.

The *London Med. Record* tells us that Dr. Koch has lately published a critique of the latest opinions on the comma-bacillus, in the *Deutsche Med. Wochensch.*, No. 45. In the first place, Koch especially insists, as on previous occasions, that our opinion about any particular kinds of bacteria must not rest upon one-sided observation of certain morphological characters only, but must be formed from the consideration of their whole properties, biological as well as morphological. A particular species of bacteria is only characterized as such by the sum-total of its properties, and it can be diagnosed only with reference to its whole behavior. Our investigations should be undertaken with the full consciousness of the indispensable necessity of this postulate, and under the absolute guidance of the methods employed, if we venture on the difficult question of the relationship of the comma-bacilli. Unfortunately, this cannot be said of investigators so far. It may be remembered, from the reports of the Natural Science meeting at Magdeburg, that Dr. Klamann alleged that he had found in cholera nostras similar bacilli and spirilla to those of Finkler and Prior. Klamann sent preparations, partly from dejections, partly from cultivations, to Koch, and neither this investigator nor other microscopists have been able to find anything like curved bacilli or spirilla in them.

The so-called comma-bacilli found by Lewis in the saliva, and long known to Koch, are longer, slenderer, and more pointed at the ends than the cholera-bacilli, and, when not too deeply stained, appear less dark at the ends than in the middle. But more important than the morphological differences are the biological. For, unlike the cholera-bacilli, these bacilli of the saliva do not develop in neutral or weakly alkaline cultivation-fluids, and the distinction between the two kinds is thus easily made.

Drs. Finkler and Prior are reproached with having entered on their difficult problem with insufficient knowledge and preparation. The fact that their cultivations were made on potatoes or on moist linen instead of on gelatine, deprived them of the particular advantage of the latter method, viz., an assured separation of the different varieties by successive cultivations; for one individual bacterium cannot be thus dealt with, but only a majority of different bacteria. The potato-culture affords no protection against the predominance of other kinds, which thrive very well by this method. Later impurities may also have occurred, and there is no guarantee that the ultimate appearances are due to the original inoculation.

Moreover, the ideas of Drs. Finkler and Prior on bacterial spores are diametrically opposed to our knowledge of bacteriology, because they regard the stained ends of the bacillus as spores, instead of looking for them in the unstained middle portion. On these and the above grounds, their assumptions regarding further conditions of development are devoid of a firm basis.

A cultivation sent to Koch by the above observers as "pretty pure," and obtained from "decomposed dejecta," showed four different kinds of bacilli on cultivation in gelatine. Of these, the individuals of one kind only were slightly curved or citron-shaped. On drying and staining, they presented a certain resemblance to comma-bacilli, but were on the whole plumper and larger, and developed more energetically both in gelatine and in potatoes. The separate colonies in gelatine were of an uniformly round shape under a low magnifying power, presented a finely granular appearance, and quickly fluidified the gelatine for a good distance round. The colonies formed by "cholera-bacilli," on the other hand, are not uniformly round, but have a zigzag periphery, are bright in appearance, of a long funnel-shape, and do not fluidify the gelatine like other bacteria. Similar differences are found in cultivation experiments in test-tubes. On potatoes, the bacteria of Finkler and Prior developed rapidly at a temperature of between 17° and 19° C., forming a pale yellowish-grey mucous mass, and the potato appeared white at the periphery of this. "Cholera-bacteria" do not grow in potatoes at this temperature, but only in a proper apparatus, where they slowly develop to dark-brown colonies.

Koch is in doubt as to whether the above bacteria originated in the intestine, and not rather in the decomposing dejecta and fluids after death. In preparations from fresh dejections only the ordinary bacteria were found, but no comma-bacilli.

Three cases of cholera nostras (two of which were fatal) and one case of arsenic poisoning (which succumbed on the tenth day) were most carefully examined by Koch, but with negative results. Moreover, hundreds of separate observations, recently made at the Sanitary Institute of Berlin on dejections from healthy and diseased persons, saliva, and buccal mucus, have never afforded the true "comma-bacillus."

Comma-bacilli, says Koch, are specific bacteria, belonging exclusively to cholera Asiatica.

In connection with the experiments of Rietsch and Nicati (vide *Berliner Klin. Woch.*, No. 35) a very diluted pure culture—hardly the hundredth of a drop of the culture fluid was used—was injected into the duodenum, without tying the ductus choledochus. With few exceptions, the animals died after a day and a half to three days. The mucous membrane of the intestine was reddened; the contents were watery, colorless, or slightly reddened, and at the same time flocculent. The comma-bacilli were found in the intestinal contents in a pure culture, and in extraordinary quantity. In other words, the same appearances existed as after fresh cholera. A simultaneous intoxication from poisonous products, which might be present in the culture fluid used for injection, is excluded by the smallness of the quantity taken.

The Action of Disinfectants on Carbuncle.

Professor Perroncito (*Annali Univ. di Med.*, July, 1884), examining the best means for disinfection for cattle-trucks, especially with regard to carbuncle, recommended in 1881 a 5 per cent. solution of sulphurous acid. To this the railway authorities objected, as it was found to damage their property, and further experience showed that, while it destroyed the virulence of the bacilli, the spores were unaffected. Hot water, chlorine, sulphurous acid, and hyponitric acid gases were tried, but were given up as expensive, inconvenient, or inefficacious. Professor Perroncito then made a series of careful experiments to determine the best and most active disinfectant, especially with regard to the bacillus and spores of bacillus anthracis. He found the following results:

1. Solutions of from 5, 10, or 20 per cent. of chloride of sodium had no influence on the spores or bacilli, the bacilli even developing spores freely in a 5 to 10 per cent. solution.

2. Solutions of carbolic acid, 1 per cent., destroyed the virulence of the bacilli, while the spores resisted a 10 per cent. solution.

3. Spores resisted a warm saturated solution of salicylic acid, and a 50 per cent. alcoholic solution. The bacilli perished in a cold saturated solution after five minutes.

4. Carbolate of soda, 5.5 per cent., killed the bacilli, but not the spores.

5. A saturated watery or alcoholic solution of thymol killed the bacilli, but not the spores.

6. Chlorine gas, even after seven hours' action, did not give complete disinfection, but chlorine water killed the bacilli in five minutes, and the spores in an hour and a half. The chlorine water must be freshly prepared. The method of Vitali is the best. Three kilogrammes of chloride of lime are mixed with 100 litres of water; six litres of sulphuric acid (1-5 water) are then added. Sulphate of lime is precipitated, and the chlorine formed is dissolved in the water.

7. Bromine destroys the virus liquid better than gas.

8. Sulphurous anhydride kills the bacteria in less than twenty minutes, but after 50 hours' exposure the spores are not hurt.

9. Saturated solution of permanganate of potash does not kill the spores, even after 52 hours' exposure.

10. The spores, after being kept for eight days in a solution of sulphophenate of zinc, retained their virulence.

11. Sulphuric acid, diluted to 1 per cent., added in equal parts to anthrax liquids, destroyed the bacilli in less than 15 minutes, while the spores resisted a 5 per cent. solution for more than seven days, and a 15 per cent. solution for more than 17 hours. The virulence of the spores was neutralized by 5 per cent. solution when in contact with them for 11 days.

12. A 4 per cent. solution of sulphate of iron did not kill the spores in six days, nor did a 20 per cent. solution of sulphate of copper in four days, nor a 4 per cent. solution of sulphate of zinc in 13 days.

13. A 4 per cent. solution of pyrogallic acid left the spores unaltered after six days' contact.

14. Very numerous experiments were made with 1 per cent. and 1 per thousand solutions of corrosive sublimate. Solutions of 2 per cent. killed the spores of bacillus anthracis in less than 20 minutes. Solutions of 4 per thousand killed them in under 35 minutes, and 1 per thousand in about one hour; 2 per thousand in two hours; 1 to 5,000 did not kill them after 10 days' exposure; 1 to 6,000 required 80 to 90 days; and 1 to 10,000 did not kill them after 9 months.

15. Glycerine destroyed the virulence of the bacilli after some days, but the spores resisted more than 14 months, and perhaps indefinitely.

16. Solutions of potash and ammonia and picric acid, even when concentrated, required many days to affect the spores.

17. Bichloride of quinine and glacial acetic acid killed the bacilli in a few minutes, but the spores resisted acetic acid for 87 or more days.

18. Absolute and commercial alcohol killed the bacilli in less than 5 minutes, but the spores, after 120 immersions in absolute alcohol were still virulent.

19. Essence of cloves did not kill the spores even after 20 days' immersion, nor sulphide of carbon after 49 days.

20. A saturated solution of chloride of zinc killed the bacilli in a few minutes, but the spores resisted more than 6 days.

21. Sulphites of soda and magnesia and "pellagrozein" (the poisonous principle of heated maize, which is supposed to cause pellagra by Prof. Lombroso) were not efficacious.

Prof. Perroncito finally recommends fresh chlorine water or super-heated steam as the best disinfectants for anthrax.

Operation for Relief of Strangulated Inguinal Hernia, also for its Radical Cure, in a Child Two Years of Age.

Dr. George Buchanan reports the following case in the *Brit. Med. Jour.*, January 3, 1885:

John M., aged two years and four months, was admitted to the Western Infirmary, Glasgow, on September 25th, at 10 p. m. The history of the case is that, when a few days old, a swelling was observed in the scrotum on the right side, and subsqeuently on the left. These, which could be reduced in size, were believed to be hernia, for which a double truss was worn, but without much effect, as the rupture on the left side repeatedly came down, and the swelling on the right never was completely reduced. This state of affairs was allowed to go on till the day before the child was brought to the hospital, when, after a severe fit of crying, the swelling on the left side of the scrotum suddenly increased, became very tense, and could not be returned. During the night the child suffered much pain, and, in the morning, vomiting occurred. In the afternoon a medical man was called, who endeavored, by careful and continued manipulation, to return the hernia, but without effect.

When the child was taken to the hospital, the house-surgeon, finding vomiting still persisting and the tumor firm and unyielding, sent for me.

I put the child under the influence of chloroform, and again tried taxis, but without avail. I then cut down and relieved the stricture, which

was very tight. The intestine, which was dark purple in color, was returned after gentle pressure. I then drew the pillars of the canal together with three silver wire-sutures, in the way I do when performing the operation for the radical cure in ordinary circumstances. The wound was dressed antiseptically.

There was no hernia on the opposite side, but distinct enlargement of the testicle. Possibly this, with a certain quantity of fluid in the sac, may have been the state of matters throughout.

It is unnecessary to give details of the progress of the case, which terminated by the complete agglutination of the inguinal canal boundaries, and the radical cure of the hernia.

Remarks.—This is the only case, within a hospital-experience of twenty-five years, in which I have had to operate on so young a child. And from a pretty extensive inquiry, I learn that the experience of other surgeons is similar. Some surgeons are under the impression that the operation is almost never imperative. But the experience of one of my colleagues, who operated on a child equally young a few months ago, shows that sometimes in children, equally as in adults, operative procedure is too long delayed. In the case referred to, attempts at taxis had been frequently repeated, before the child was sent to the hospital, and the bowel was found approaching to gangrene, and the result was fatal. But, further, I hold that delay in such cases, or even in those which have resisted very moderate attempts at reduction, is uncalled for and unwise, because advantage may be taken of the child being under chloroform to perform the radical cure; it adds nothing whatever to the danger of the operation, and brings about a most desirable result. Every year's experience convinces me that there are a very great number of children in whom cure by truss is, or at all events has become, totally impracticable. Theoretically, every child with a hernia should be provided with a truss which will keep it up; and every mother ought to be instructed so to manage the truss that the hernia will never be allowed to come down. But, practically, in hundreds of infants, this is impossible.

How Cholera Travels.

Dr Pettenkofer writes in the *Popular Science Monthly:*

The disease is best known in Europe under the names of cholera, cholera morbus, Asiatic cholera, since the epidemic of 1817 to 1819, in which the English army, under the command of the Marquis of Hastings during a war against the natives, was rendered unfit for fighting and almost annihilated. But cholera had never visited Europe till the present century, when in 1830 it appeared in Russia and spread to Poland, where war was prevailing. Since that time, sometimes at longer and sometimes at shorter intervals, cholera has appeared in Europe. The question why cholera remained a thousand years in India before it first began to migrate is one of great interest, but one which cannot be satisfactorily answered. The principal consideration appears to me to be that the event happened at the time when intercommunication in all directions, both by water and land, had become more rapid. The first steamship appeared in the Indian waters at the beginning of the second decade of the present century. By land also intercourse was greatly accelerated. The Russians possibly took cholera from India, Arabia, Afghanistan, or Persia, through couriers and stage-coaches. It soon became clear that cholera, the specific cholera-germ, was in some way or other propagated along the paths of human intercourse, and it also became evident that unless the germs found a suitable soil within a certain time they did not flourish. Observers soon discovered that cholera was more prone to appear in certain regions and to affect certain localities, while it shunned other districts; and, again, that other regions were only visited at intervals of many years. It is also a fact that Asiatic cholera never yet appeared at a place which had not previously been in communication with a region where cholera prevailed; and, further, that the disease from an infected locality never yet passed on to another place if the journey lasted a certain time without interruption. The large intercourse between India and Europe, more particularly England, by means of ships which sailed round the Cape of Good Hope, had never succeeded in carrying cholera from India to England.

Railway Accidents and Color-Blindness.

It has not been the duty of the writer to investigate cases of accident which might have been caused by defects of sight, but he has been assured by officials that a solution will hereafter be found in them for those hitherto insoluble mysteries where men, otherwise credible, have so flatly contradicted themselves and the circumstances of the case. By one prominent officer he was told that, being upon a train at night delayed by some slight accident, he himself took a red lantern, and, going a proper distance back, placed himself on the track in the way of an on-coming train, but, finding his light not observed, he was compelled to dash it into the cab to attract the engineer's attention and arrest him in his progress to a collision. Upon the examination of another engineer, his superior officer being present and convinced of his marked color-blindness, remarked that, but a short time before, the man had run into the rear of a train properly protected by a red light in the hands of a brakeman some distance in the rear, that the most careful investigation had resulted only in the suspension of the brakeman for not having gone far enough back, but that he was now satisfied that the color-blindness of the engineer had been the real cause of the accident. Some slight or minor accidents recently led to the discovery that another engineer had by some oversight not been tested in his division, and this led to his examination and detection there, and to his conviction by the writer as a color-blind. Still another case now presents itself. An engineer some time ago ran over and killed a brakeman holding a danger-signal on the track in front of his engine, and no satisfactory explanation could then be given; but the division examiner predicted that he would probably be found color-blind, and on his examination this proved to be the case.—*From "The Sight and Hearing of Railway Employees," by Dr. William Thomson, in Popular Science Monthly for February.*

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TREATMENT OF ASIATIC CHOLERA.

During the last cholera-epidemic in Italy, Prof. A. Cantani had the opportunity of treating a large number of cholera patients. He has published the results of his observations in the *Deutsche Med. Zeitung*, December 11, 1884. From this voluminous paper we take but the two following points as specially important.

In every case, where early in the cholera-diarrhœa, within one or two hours after its first appearance, the following injection was carried high up in the bowel, the outbreak of the graver disease was surely prevented, and a few injections invariably sufficed to put an end to the rice-water discharges:

℞.	Infus. flor. chamomillæ,	2 liter.
	Acid. tannic,	3-6 grm.
	Gummi Arabici,	30-50 grm.
	Tinct. opii deodor.,	30-50 drops.

In an orphan asylum most of the older persons had died of cholera when Prof. Pitone arrived, and at once instituted systematic injections of the above fluid. In every case amelioration of the symptoms at once set in, and forty-eight hours later all the patients were out of danger, while according to Pitone's view, they would probably have all shared the fate of those who had died before he came, as so often happened in similar institutions of Naples during the last epidemic.

In the algid stage (of collapse), many a human life has been saved by the intravenous injection of a solution of common cooking salt —chloride of sodium. It is remarkable to note the effect. After a liter has been injected into the vein at the arm, the patient, who already seemed dying, and appeared shrivelled, suddenly changes the expression of his face, the spasms cease, he seems visibly to gain in weight, the pulse at the wrist once more becomes perceptible, the voice loses its peculiar hoarseness, that fearful sensation of anxiety, so characteristic of cholera, and so ominous as announcing approaching dissolution, vanishes, and reaction sets in, thus saving life.

Notwithstanding all theoretical opinions to the contrary, Cantani strongly recommends these intravenous injections, and says that they have not

failed him in a single case, and that he invariably saved the life of the patient, if the latter still evinced symptoms of life while he made the injection. No matter how severe the symptoms of collapse, if the heart's action can still be felt, reaction invariably sets in within from one to two minutes after the injection of the chloride of sodium, which seems at once again to fill up the impoverished vessels with fluid. A whole liter should at once be injected, and the fluid ought to have the bodily temperature. Cantani guarantees an effect as long as paralysis of the heart has not yet set in and power of absorption still continues, no matter how grave otherwise the symptoms may be.

In case the cholera visit us, it may be well to try both kinds of injections, the one in the prodromic diarrhœa, and the other in the final stage of collapse.

DETECTION OF POISON IN SAUSAGES.

Remarkable cases of illness often develop themselves after the swallowing of sausages or other meat finely cut up. We do not refer to the so-called sausage-poison, the exact character of which has first been determined by Virchow, and the cause of which is a septic bacterium, but we mean the common parasite, Finne, which rarely produces death, but cholera-like symptoms, which, though but seldom fatal, are exceedingly annoying to the patient suffering from them.

The parasite, if isolated in water or in some other pure fluid, can be recognized under the microscope with comparative ease, but when present in the contents of the alimentary canal, or when mixed up with the finely-cut meat, its demonstration becomes one of the most difficult labors, and this fact is the reason why the discovery of this parasite has so often escaped the scrutiny of the most experienced microscopists.

Dr. Schmidt, in Mülheim (*Deutsch. Zei.sch. f. Tiermedicin und Vergl. Pathol.*, Bd. x., H. 5 and 6), while making some experiments recently, observed a remarkable tenacity which this parasite evinced against the action of the gastric juice, and further investigations have proved to him that we possess in this fluid the best means for the discovery of the parasite in mixed, finely-cut up meats. He proposes the following method:

A sufficient quantity of the sausage or finely-cut-up meat is digested for several hours by the aid of artificial gastric juice six to eight times of its volume under continuous stirring and at a temperature of 101°F. Thus, meat and fat are digested, the latter accumulating on the surface in the form of a more or less emulsified layer, but only the wall of the vesicle of the parasite is attacked, while the heads, hooks, and hook-wreaths are intact. These parts of the parasite possess a high specific gravity, and they therefore soon collect at the bottom of the vessel in the shape of white round bodies of the size of a rice-kernel. Only after an action of the gastric juice continued for several days can a trace of its having attacked the parasites be detected.

On careful inspection, especially if made under water, as ought to be done, there appears across these white bodies a transverse fissure, and the head of the parasite will be found either withdrawn into its caspule or slightly pushed forward. In either case, the head may be easily isolated by the aid of the needle; and its digestive and other apparatus, if put into glycerine, may be readily distinguished if twenty times magnified.

TREATMENT OF RETRO-UTERINE HEMORRHAGES.

As is well known regarding the treatment of retro-uterine hemorrhages, the doubt still exists, whether laparotomy or the vaginal opening of the blood-tumor merit the preference. Martin represents the views of those who think that by laparotomy they are better able to remove thoroughly all blood-clots from the sac than can be done by elytrotomy (opening per vaginam).

P. Zweifel (*Deutsche Med. Zeitung*, No. 100, 1884, December 15) has recently investigated the subject. He believes that, from a theoretical point of view, the adherents of Martin were right, but that practically the scraping of the sac could be done with the same ease and thoroughness, if performed per vaginam. He recommends

an opening of two or three fingers' width in the vagina, and says, that with a cautious use of the dull curette the danger of hemorrhage need not be apprehended.

In laparotomy, the surgical injury is greater, the operation more complicated, and the transfer of the contents of the tumor into the abdominal cavity scarcely to be avoided. Regarding statistics, the figures thus far still are rather small, but as far as they go they doubtless speak in favor of the operation per vaginam. The cavity can be emptied with the same ease and disinfection of it, as well as any local application of whatever kind may be performed with far greater security, there not being the risk of either the contents of the sac or of the injected fluids entering the peritoneal cavity. Where, therefore, no special reasons, as abnormal position of the implicated parts, contra-indicate the operation the opening of the sac should always be made from the vagina, and laparotomy performed only in specially-selected cases, which do not permit the other method.

HÆMATOCELE, HÆMATOSALPINX, AND THE REFLEX THEORY.

After reporting a number of such cases, some of them observed by himself, Dr. Otto Alberts, in Berlin, endeavors to answer the question, how the blood-tumors of the tubes have their origin (*Deutsche Med. Zeitung*, No. 100, p. 573).

Considering the nature of the affection, there are but three possibilities. Either these tumors are caused by hemorrhages of the mucous membrane of the Fallopian tubes, or they develop themselves in consequence of venous stagnation in the uterus, or both causes act in unison.

The reflex-theory, notwithstanding that experiments on the dead body seem to prove its correctness, is thrown aside by A. The muscular contraction of the living tube is similar to the intestinal peristaltic, and to judge from the locomotion of the ovum, a centrifugal one. But there is no doubt that the tube itself is the cause of the bleeding. Numerous observations have demonstrated that at the time of the menses a physiological hemorrhagic exudation takes place from the mucous membrane of the tubes.

The diagnosis of the hæmatosalpinx is exceedingly difficult, if not discovered on the dead body or determined during life by puncture of the sac. Besides, it usually offers every time a varying picture in the different stages of its development, and neighboring inflammatory processes generally so complicate the affection that but a probable diagnosis can be made in the average case. The treatment best to be recommended would, therefore, be an expectant one, though the results of the post-mortem examinations make us fear that the fatal issue will probably be the general rule, from which rarely an exception may be noted.

Notes and Comments.

Acute Purpura Hæmorrhagica in a Child.

This disease, rare as it is in adults, is so very unusual in young children that the case which Dr. R. A. Gibbons reports in the *London Med. Times*, January 3, 1885, is worthy of note. The patient was a boy aged three years, who had been under treatment for eighteen months, suffering from chronic enteritis. His diet had been carefully regulated during all this chronic illness. His family history was good; syphilis was denied, and there was no reason to suspect it. Physical examination failed to reveal any enlarged glands at any time, and the liver and spleen were not palpable. There was no pus in the dejecta, and the urine never contained albumen. Last July (15) he was seized with an attack of diarrhœa similar to many others he had had during his long illness, and there was occasional epistaxis. He was now found to have extravasations of blood in various parts of the body. Very soon a *bloody* diarrhœa set in, which rapidly increased in severity, defying all remedies to check it. He therefore, had nothing more than small quantities of brandy and meat essence by the mouth. The motions still continued, and were more frequent, at least every fifteen minutes, but were smaller in quantity. The child gradually became blanched to the last degree, the lips and conjunctivæ having lost all color, and he looked like a pale wax model. About 3 a. m., July 16, he suddenly sat up in bed and vomited a perfect stream of apparently pure blood, part of it being blackened. At

least a quart must have been thus ejected, judging from the amount caught in a basin, and the state of the bed-clothes, which were quite saturated. After this, he declared he felt better, and was perfectly conscious, speaking to his mother and the nurse. He was now no longer irritable, nor did he complain of any abdominal pain, which, up to this time, had been constant, whilst his strength had visibly failed, and after being gently lifted on to a clean bed close by, he spoke very little, remaining, however, sensible for about three-quarters of an hour longer, when the pulse, which had been extremely feeble, gradually failed, and he quietly passed away.

The points of special interest about this case are the extremely rapid course, the comparative freedom from epistaxis, and the large amount of blood passed by the rectum, the hæmatemesis, the absence of faintness and convulsions, the latter being so frequent in children dying of copious hemorrhage, and the perfect consciousness up till within a few minutes of death.

Gastrostomy.

A short paper in the *New York Medical Journal* contains some points of interest. At one period in the history of the patient, when a partially dilated œsophageal stricture exhibited a tendency to rapid contraction, a very efficient dilator was improvised by the use of the transparent part of "lemon-candy," which was softened by heat and moulded into the proper shape about the looped extremity of a stout iron wire. These candy dilators were well borne, and the stricture was thus gradually dilated to a calibre of one inch. Dr. Bushnell remarks that an examination of the after-history of patients who have been subjected to gastrostomy when much reduced by starvation, prompts the doubt as to whether any benefit was derived from the subsequent introduction of food into the stomach. Peristalsis is interfered with by the stitches and the broad adhesions; adhesions are a recognized cause of dilatation, and the starved stomach of the gastrostomized must be peculiarly unfitted to overcome such hindrances to its activity; the exposed portion of the viscus becomes inflamed under the influence of the air and of the wound discharge; its circulation is impeded by the stitches (Gross's statistics show four deaths from gangrene of the stomach in 137 gastrostomies), and from the diminution of its muscular contractions; its innervation probably suffers in proportion; and amidst such disturbances, neither the secretion of gastric juice nor the absorption of peptones can be expected to take place normally. There is also danger of the food gravitating into the splenic end of the stomach and remaining there to ferment. It is therefore advised that all food should be thoroughly peptonized before administration; that forty-eight hours after the operation the patient should be placed on his right side after feeding, to favor gravitation towards the pylorus; that hydrochloric acid be added to the food (increased acidity favors the passage of the stomach-contents through the pylorus, *Leube*); that the viscus be frequently washed out by a siphon; that, to spare the stomach, the water needed should be supplied by enemata. (It is noted that the patient referred to, who received a quart of water daily *per rectum*, with chips of ice to suck *ad lib.*, never complained of the thirst which usually adds so much to the sufferings of œsophageal stricture.)

Pent-up Secretions.

Among the more recent contributions to practical medical literature there have been few that compare with the paper on the above subject, which Dr. C. G. Wheelhouse contributes to the *Brit. Med. Jour.*, January 3, 1885. It may be—indeed it sometimes is—that the consequences of pent-up secretions are neither important nor serious; thus, in the case of an over-active tunica vaginalis, beyond the discomfort arising out of the weight and size of the resulting hydrocele, no other evil consequence need be greatly feared.

In some, as in the case of the pleura, it may be that the contained viscus, though essentially vital to life, may permit a certain amount of crowding; and, if not unduly pressed, or for too long a time, may, when the pressure is removed, be restored uninjured to its pristine condition, and no permanent harm may have been done.

Thus, many simple effusions of serum into the pleura doubtless occur, are reabsorbed without causing more than temporary inconvenience, and leave no evident traces of their existence behind them; and, provided relief be obtained through the help afforded either by the physician or the surgeon, the spongy lung, uninjured in texture, will resume its normal position and functions almost as if nothing had happened, and no trace of the effusion may remain.

The writer then goes on to demonstrate how, with antiseptic precautions, pent-up secretions that threaten life can be safely withdrawn by surgical interference from the pleura, the pericardium, the lung, the cavity of the uterus, the brain, liver, kidney, and other important organs.

He strongly says: "When I was young he would have been a bold man who would have ventured, unless in presence of destructive disease, to make a direct and free incision into the knee-joint, whereas now we do so—shall I say with impunity? —well, almost with impunity, and certainly without much fear; but I have known death follow the simple removal of a loose cartilage from the knee-joint, and I have known many limbs amputated through the thigh for injury to the knee-joint, which we should never think of condemning now; and all this is the result of one only of the many great discoveries of our age."

Treatment of Fractured Patella.

The latest apparatus devised to this end is described by Dr. Hobart Burge, in the *New York Medical Journal* for September 6th. The limb rests on a padded straight board, which is divided and hinged opposite to the knee, to provide for slight passive motion, and to which a movable foot-piece is attached; it also carries, on either side of the knee joint, a pair of small brass pulleys, round which cords can be passed to weights depending from the foot of the bed. The splints proper are of sole-leather, one about a foot long, five or six inches broad at its upper end, and narrowed towards the knee and made concave at its lower end so as to fit the upper border of the patella; the other splint about three and a half inches square, and cut out at its upper margin so as to fit the lower border of the bone. The splints are soaked for a few minutes in cold water, until quite pliable, padded on one side with cotton-wool neatly covered with unbleached muslin, and then bound on to the limb with roller bandage as nearly as possible in the position which they are intended to occupy. In a few hours they are thoroughly moulded to the limb, and as firm as board. The roller is then removed, and the middle of a small strong cord is sewn firmly just above the concave margin of each splint, and its ends passed through the pulleys and attached to the weights, so as to approximate the concave margins of the splints, and thus to draw together the fragments of the patella which they embrace. The splints are so firm and fit so accurately that no bandages are necessary; they need only to be tied in place by bands passing, not directly around the limb, but under the board on which the limb rests. The weights may vary from one to three pounds. The apparatus is comfortable, inexpensive, and efficient, while it possesses the advantage of leaving the site of injury constantly exposed for the surgeon's observation.

Treatment of Entropion.

At the last meeting of the French Society of Surgery in Paris, Dr. Terrier reported that Viensse, a military surgeon in Algiers, saw an Arab who had been treated for an entropion by an Arabian physician with the ferrum candens (actual cautery). It was remarkable that the hot iron was not applied parallel to the margin of the lid, but in five to six lines vertically from it, extending downwards. Trousseau had communicated a similar observation and cured ten cases in the same manner, with the only difference that he employed the thermo-cautery for the same purpose. According to the severity of the affection, the burning should be done more superficially or so deeply as to extend to the tarsal cartilage. The thermo-cautery, though much easier to use and handier, always gave the same result as the iron at white heat.

During the debate that followed this report, Trélat and Herin recommended to destroy the hair follicles of the margin of the lid by the aid of a fine needle at white heat. Trélat remarked that he always employed a magnifying glass, so as to be certain that he really reached the hair follicles. He had found this procedure uniformally successful, more reliable, and far less painful and disfiguring, than the actual cautery. He had also tried the galvano-cautery in such a manner as to make use of a platinum needle, which was brought to the required heat by a galvanic current, and thought that the result was still better, especially as he was enabled to pierce the hair-bag first with the needle ere he gave to the latter the required heat, thus, for certain, preventing injury to neighboring parts.

Excision of the Superior Maxilla.

Since it is well that we should know in what cases such an operation is justifiable, we note the conclusions of Dr. George A. Peters after reporting a case in the *N. Y. Med. Jour.*, January 17, 1885. This author considers the operation justifiable under the following conditions:

"Necrosis of the upper jaw, whether as the result of injury or disease in neighboring soft parts, syphilis, etc., requires operation, sometimes even to the extent of removal of the entire jaw.

"Non-malignant tumors of the upper jaw, as fibroma and enchondroma, occasionally attain a size requiring removal of the entire bone.

"*Hyperostosis of the jaw*, which consists primarily in periosteal inflammation, leading to the deposit of new bone and the expansion and filling up of the original osseous structure, is uncon-

nected with syphilis or struma, and appears to be beyond the control of remedies, and not infrequently reaches so great a size as to cause much deformity and justify the removal of the entire maxilla.

"It is in connection with malignant tumors of the upper jaw that the surgeon is often called upon to decide as to the propriety of removal.

"It is now well established by a large experience that the operation for cancer, even when so radical as the removal of the entire jaw, does not result in a cure, the disease being almost certain to recur. Nevertheless, the possibility of a non-recurrence, and the positive temporary relief afforded, in connection with the moral effect of the operation, will justify surgical interference."

Cure of Muscular Contracture.

Dr. Ferrier had a patient in whom, after an attack of pachymeningitis, a complete contraction of the flexor muscles of the right thigh developed itself. The contraction was so severe, that the calf of the leg pressed against the posterior surface of the thigh. He tried every known means to relax the muscles, but as he did not succeed in thus establishing a permanent cure, he had finally recourse to tenotomy, subcutaneously cutting all the sinews of the affected muscles. Afterwards passive and active motions and massage were employed, to keep the muscles in their normal position. (*Deutsche Med. Zeitung*, No. 99, 1884.)

When Ferrier reported the case, his procedure, and the result to the Paris Society of Surgery, Prof. Trélat rose and remarked, that while he could not but congratulate his colleague on the happy result of his case, he thought it wiser to guard such patients against the contracture which inevitably ensues in every case, where by carefully observing and controlling the position of the sufferer such a mishap is not prevented. In none of his cases had he ever had occasion to treat contracted muscles, but he was always careful not to allow them to lie in a strained position, or to bend forcibly their extremities. All these muscles should be kept relaxed, and a little attention to this rule was all that was necessary to prevent in any case of pachymeningitis the occurrence of contractures, a fact surely worth more than the most complete and satisfactory cure of a contracture once established.

Perchloride of Mercury as an Obstetrical Antiseptic.

Of late, perchloride of mercury has been the subject of considerable investigation as an antiseptic in midwifery, and the results have been very satisfactory. Professor Tarnier (*Archives de Tocologie*, July, 1884,) has reminded us recently how French researches on this point have been overlooked on the other side of the frontier. In a communication by Professor Kehrer, which has been lately published, the following results are arrived at:

1. Perchloride of mercury is the most powerful of all antiseptics.

2. A solution of one in a thousand has been shown to be sufficient to completely destroy the germinative power of microbes.

3. A solution of 1 in 100,000, added to liquids in which microbes were being cultivated, arrested their development.

4. A solution of 1 in 333,000 definitely arrests the development of the microbes. Out of 221 lying-in women, Professor Kehrer only observed four cases of temporary urticaria, and three cases of mercurial stomatitis in three syphilitic patients. In conclusion, the chief drawbacks of the sublimate are a roughening of the hands and easily rusting instruments, making sponges stiff, and giving a deep coloration to any small depressions of the skin. Prof. Kehrer warmly recommends the employment of perchloride of mercury during labor and lying-in.

The Relation Between Sick Headache and Astigmatism.

In the *Brit. Med. Jour.*, January 3, 1885, Mr. H. Bendelback Hewetson publishes a paper on this subject, and mentions six cases, as well as relating the notes of several others, in which patients of ages from 12 to 36 had been for many years the victims of periodic attacks of migraine. Between the attacks of migraine there had been chronic dyspepsia and vertigo in walking, in several of the cases. Two could bring on an attack of vomiting by sewing. All had some form of astigmatism, either mixed or compound, hypermetropic or myopic. All were completely cured by wearing proper correcting cylinders constantly. Mr. Hewetson believed that, when astigmatism of an abnormal character (or in some rare cases even a simple state of hypermetropia) existed in a neurotic subject, it might be the entire cause of periodic sick headache, with its accompanying dyspepsia, and could be cured by suitable glasses, constantly worn. Mr. Hewetson related Dr. Lauder Brunton's experience on this subject, but thought that the chief agent in producing this neurosis was the astigmatic element in the visual defect in most cases which had come under his

notice; and it evidently had little relation to the amount of an optical defect, unless that defect were complicated by astigmatism. Astigmatism in one eye, or eyes of varying degrees of optical error, would cause the same phenomena in neurotic subjects.

Periostitis Following Typhoid Fever.

It is not generally realized that periostitis is sometimes a sequela to typhoid fever, but Dr. John D. Hayward, of Liverpool, believes that it is a much more common occurrence than is usually supposed. During the past few years he has met with several cases which he notes in the *Brit. Med. Jour.*, Jan. 3, 1885.

In one case the periostitis did not suppurate, and the patient did well; in another, periostitis appeared about several of the long bones; suppuration occurred, with external discharge; but, after new attacks of periostitis had ceased to occur, and the old sinuses had healed (which they did readily), tho patient sank under acute phthisis, of which, previously to the enteric attack, there had been no evidence. The attacks of typhoid fever in which he has noticed this sequela have been severe ones.

With reference to the etiology, Dr. H. considers that it is possible that this local inflammation is due to the tendency to degenerative changes induced by the exhausted condition of the system after a severe enteric fever, resembling thus some of the commoner sequelæ of this fever. Or, there may be a septicæmic origin in some cases, just as some of the instances of parotitis, marasmus, and phthisis after enteric fever, are supposed to arise.

Bromide of Potassium in Diabetes Mellitus.

The use of bromide of potassium in diabetes has been recommended by Dr. G. Felizet; but Dr. Worm-Müller describes, in the *Norsk Magazin for Lægevidensk.*, a case in which the administration of this drug was not followed by success. The patient was a man aged 33, who came under Dr. Worm-Müller's care in February 1881. He had suffered from diabetes since 1880. The urine contained 5 per cent. of sugar. His diet was exclusively animal. On March 13 there was no sugar, and his weight had increased from 66 to 70 kilogrammes (about 145½ to 154⅓ pounds). He was allowed a little bread with his dinner. Little or no sugar was found in the urine, the same diet having been continued until October, 1882, when 1 per cent. was detected. The quantity of bread was diminished to one-half. The sugar remained unchanged. From Nov. 7 to 21, 40 grains of bromide of potassium were given; under its use the sugar rose to 3·4 per cent. The use of the bromide was then stopped; and on Dec. 1, the diet being exclusively animal, the percentage of sugar was 3·2. The author points out that the bromide of potassium had no influence in arresting the progress of the disease, even with an exclusively animal diet.

The Bacillus of Infantile Diarrhœa.

Truly the bacillus craze is being run into the ground. In the pages of our esteemed contemporary the *London Med. Times* (January 3, 1885), we read as follows:

"There seems to be no end to the varieties of bacilli. The latest addition to bacillology, if there be such a science, comes from France. At a recent meeting of the Societé de Biologie, MM. Clado and Damaschino announced that they had discovered the bacillus of infantile diarrhœa. This bacillus is about three times the size of the tubercle bacillus, and is six times as long as it is broad. It is a little curved, sometimes becoming crescentic in shape. The numbers found in any given case were in direct proportion to the severity of the disease. They were never found in the interior of the cells or epithelial masses, but always in the interstices. It was in the cases of green diarrhœa that the bacilli were found, and they disappeared as recovery took place, and the stools improved from green to yellow. The authors promise that they will shortly make known the results of their cultivation experiments, which are being vigorously pursued."

A Case of Thyroid Asthma.

Dr. Dardel (*Rev. Méd. de la Suisse Rom.* 8, '84,) observed severe attacks of asthma, apparently caused by an enlargement of the thyroid gland, in a little boy, æt. 13 months. After the child had happily escaped a number of seizures, it died in an attack of spasm of the glottis. At the post-mortem examination, besides the usual signs of death by suffocation, the following was observed. The trachea was remarkably narrow, especially where it was surrounded by the horseshoe-like shaped goitre. The thyroid gland, very voluminous, was pressed between the sternum and the trachea, and had caused with the latter many intimate adhesions. D. imagines that the asthmatic seizures were due to a peculiar spasm, first produced by the pressure of the tumor, and favored by the spasmodic nature of the laryngeal muscular apparatus. The disease is a very grave one,

especially on account of its changing character Treatment consisted of baths, derivants applied to the sternum, and tonics and anti-spasmodics, especially oxide of zinc and bromide of potassium.

Introspective Insanity.

Among those vague conditions of mental weakness in which there is slight derangement of the intellectual powers, yet a decidedly marked enfeeblement of the will, and an excitement of the emotions of a more or less limited kind, we find a variety of interesting psychoses which have, within a comparatively recent period, been considered under the names *folie du doute* or *grübelsucht*. And in an interesting clinical paper in the *American Journal of the Medical Sciences* for January, Dr. Allan McLane Hamilton treats them under the title of "introspective insanity." In the cases Dr. Hamilton relates there was a history of insanity, and the nervous temperament was manifested by various peculiarities, more often by a species of hypochondriasis, by peculiarities of temper, and by acts of eccentricity which caused the subjects to be looked upon as "queer." These terms are applied to the condition of mind which is manifested by a morbid feeling of doubt and consequent indecision under the most ordinary circumstances, when both the doubt and indecision are unreasonable in the extreme, but the individual under the mandate of an imperative conception yields more or less to his disordered emotions. Some years ago we would speak of this condition of mind as "hysteria," or, if it influenced the patient's conduct to any remarkable degree, we would be at a loss for a proper explanation.

A New Method of Diagnosing Pregnancy in the Early Months.

The sign on which Professor Hegar comments (*Annales de Gynécologie*, September, 1884,) is a peculiar softness, a certain subtileness, and a thinning of the lower segment of the uterus—*i. e.*, of the part of the uterus which is immediately above the insertion of the sacral uterine ligaments. This condition can be easily verified, not only when the uterus is resistant, as is usual, but still more so when it is elastic and soft. Even in these cases it is possible, by depressing the lower part of the uterus, to distinguish it from the superior portions, and from the rigid cervix. The softness of this part is such that one might imagine that the cervix was simply in contact with a pelvic or abdominal tumor. We do not know what pathological condition of the womb can present such symptoms. The cause of this remarkable sign exists in the fact that the inferior segment of the uterus becomes during pregnancy the finest part, the softest, and the most elastic. It thence results that, in practicing the rectal touch with abdominal palpation, it is possible to feel between the fingers this portion of the uterus, with the characters it presents.

Choice of Teeth for Extraction for the Purpose of Uniformity.

The *Weekly Medical Review*, November 15, 1884, says:

The physician is not always consulted relative to the best course to adopt in regard to the teeth, but he cannot afford to be ignorant of the peculiarities of this important part of the anatomy. When the teeth are too much crowded in the jaw, it is frequently desirable for æsthetic and hygienic purposes to draw some of them, and the question which to draw when there is a choice has, it appears, been a constant source of discussion among dentists. Dr. Perry, in order to throw some light on the subject, has tabulated 7,277 extractions for disease, and finds that 2,823 of these were first permanent molars, 737 were first bicuspids, and 944 were second bicuspids. As the statistics show that more first molars are lost than bicuspids, we should, as a general rule, take out the first molar where the choice must be, as is usually the case, between this and a bicuspid.

The Influence of Potassium Bromide on Nutrition.

The favorable results obtained from the use of potassium bromide in different nervous affections, particularly epilepsy, leads one to conclude that the nervous functions are influenced by this drug. B. Schultze (*Zeitschr. für Biologie*, No. 19,) made a series of experiments on himself, taking the bromide in ten-gramme doses daily for some days. He found a large increase in the volume of the urine on the day the drug was taken. The nitrogen excreted was determined in the urine and fæces, but the influence of the bromide upon its elimination was not marked; the sulphur, however, was found to be increased, and the phosphorus diminished. The author, therefore, concludes that under the influence of this drug the metabolic activity of the nerve-centres is diminished, this being accompanied by a decided diminution of the nervous activity.

A Simple Method of Washing out the Bladder.

In the *Lancet*, October, 1884, p. 675, Mr. Buckston Browne describes a simple method by which

a patient can wash out his own bladder. A diagram is given which helps to explain the action of the instrument. A simple bifurcated brass tube, without valve or stopcock, has one end fixed to a Higginson's syringe; the nozzle is fixed at the other end to a catheter in the bladder. The fluid is gently injected into the bladder by squeezing the ball of the syringe, whilst a finger is placed over the open end of the bifurcated tube; when the finger is removed the contents of the bladder escape, or fresh injections can be made into the bladder, and then allowed to flow away at pleasure. By this means a patient is able to wash out his own bladder with ease.

Vesico-vaginal Fistula with Inverted Bladder.

The details of this case, which is believed to be the only recorded instance of a bladder inverted through a vesico-vaginal fistula, are given in the *New York Medical Journal*. The patient, aged 47, was admitted on October 11, 1881. She was married at 25, and had one child still-born. The labor was instrumental, and incontinence of urine occurred soon after it, 20 years ago. She had never sought relief for this, and spoke of her present suffering as having begun only one year before admission. During this period, however, the pain had been so intense that she had not been able to leave her bed. There was constant pain in the lower part of the abdomen, the bowels were constipated, appetite poor; nausea and vomiting were almost constant. The urine was pale yellow in color, sp. gr. 1002, alkaline, and contained a trace of albumen; the quantity could not be estimated. She was examined under ether on October 29. From a large opening in the vesico-vaginal septum there protruded a bright red, round, exquisitely sensitive tumor, which was found to be the inverted bladder. The exposed mucous membrane was much inflamed, and bled readily on being touched; the openings of both ureters could be distinctly seen. The mass was reduced by gentle taxis, and was retained by the support afforded by a Skene's glass stilette made to pass through the urethra, with its extremity resting upon the upper border of the fistulous opening. A vaginal glass plug was also introduced to aid in supporting the bladder.

On November 30, the inflammatory condition of the parts having now somewhat subsided, the edge of the fistula which was about 5 cm. (2 inches) in diameter, was carefully pared and bevelled from the vesical margin, and twelve silver sutures introduced. Before closing the fistula it was found necessary to liberate adhesive bands at either angle. A self-retaining catheter was introduced, and the patient was given one-sixth of a grain of morphia subcutaneously, and ordered lime-water and milk every two hours. There was subsequently much vesical tenesmus for a day or two. The sutures were removed on December 7, union was imperfect at either angle, and in the centre was a small patulous opening. A second operation was performed on January 6, after which the left opening—situated just at the site of the ureter—alone remained patent, just admitting a Snelling's probe. Three subsequent operations, on January 20, February 3, and March 28, failed to close the opening. During each of these operations a probe was passed through the urethra into the ureter, so as to prevent wounding or obliterating the latter. The patient returned home on May 8, 1882, and after some months urine ceased to pass through the opening in the septum, probably owing to the contraction of the cicatricial tissue.

Mumps as a Cause of Sudden Deafness.

Disease of the ear during the progress of acute infectious disorders is a not infrequent occurrence. Especially are suppurative inflammation of the middle ears common during the progress of scarlet fever, and non-suppurative inflammations are a frequent attendant upon the progress of measles. The nature and treatment of these ear diseases are well understood. But occasionally during the progress of mumps a sudden and complete loss of hearing occurs which is not so well known, either as to its nature or its treatment, and a paper on the subject from the pen of Dr. Leartus Connor, of Detroit, which appears in the October number of the *American Journal of the Medical Sciences*, is both timely and instructive.

As the result of his personal experience and of the study of thirty-three recorded cases, Dr. Connor concludes that—

1. Mumps do in some rare cases produce complete deafness.

2. This deafness is usually attended with all the evidences of disease of the labyrinth.

3. These show that it sometimes begins in the cochlea, but more frequently in the semi-circular canals.

4. Owing to the lack of early observations and treatment it is impossible to say that it is not transmitted through the middle ear from the parotids to the labyrinth.

5. The history of some of the cases would seem to suggest that such an origin was possible.

6. This possibility renders it very important

that every case of deafness during an attack of mumps be at once carefully examined, so as to settle the question.

7. This possibility offers the only hope for the successful treatment of these cases so as to prevent deafness. Thus, if there be a middle ear disease, we might hope that revulsive and counter-irritant treatment would arrest the disease and save the labyrinth.

8. As to the treatment of the labyrinthine disease nothing has thus far been devised that has produced any satisfactory result.

Dry Cupping in the Treatment of Anthrax.

Dr. E. I. Thorn writes as follows to the *Medical Record*, January 17, 1885:

"Upon the appearance of one or more of the small ulcers at the apex of the tumor, apply the cup after inserting a lighted taper moistened in turpentine. In a moment this will open the cells, and there will exude into the cup a teaspoonful, more or less, of sanious pus. Follow this operation with poultices to keep up the discharge, and in a few days the carbuncle will disappear. In this way we avoid from three to six weeks of suffering, and the constitutional results of the usual protracted illness."

Correspondence.

Hamamelis in Epistaxis of Typhoid Fever.

Eds. Med. and Surg. Reporter :—

Henry B. English, æt. 22, a railroad laborer, had been complaining of the usual symptoms of typhoid fever for several days. While sitting in his chair one afternoon he felt as though "something had exploded in his nose," which was followed by a profuse epistaxis of a violent nature. He called at my office at 4 p. m. On examination, I found blood running down over the soft palate in intermittent jets, and oozing out at the anterior nares around the temporary plugs of cotton he had placed in his nostril. I introduced some nasal plugs, freshly saturated with tannic acid, which checked the bleeding immediately and appeared to be permanent, but only proved to be temporary. I then resorted to the remainder of this class of astringents—alumen, gallic acid, etc., subsulphate of iron being the only ferruginous preparation resorted to. I then left my patient, telling him that I would call again in about an hour, this being 8 p. m.

On returning, I found my patient in the same precarious condition as he was when entering my office, the subsulphate of ferrum having failed to be of any therapeutical value in this case.

I then removed the old plugs and replugged the anterior and posterior nares with freshly-made ones of absorbent cotton. He assured me that he would die, for his strength was failing fast, and what assistance could be given must be rendered immediately. I examined his pulse, found them weak, irregular, and his life in great jeopardy. I remembered of hearing of the hemostatic properties of hammamelis while attending lectures. I prescribed the fluid ext. in ʒss. doses every fifteen or twenty minutes, as the emergency of the case demanded. The epistaxis was controlled immediately.

His typhoid developed in a very few days. He passed through the entire attack without a single instance of the hemorrhage returning, and was convalescing, when he had perforation of the bowel, and died before medical aid could be summoned.

The point I wish in this case is to point out the valuableness of hamamelis over other astringents and styptics in this case of epistaxis.

Wm. T. Easley, M. D.

Coffeen, Ill.

News and Miscellany.

Official List of Changes of Station and Duties of Medical Officers of the United States Marine Hospital Service, Oct. 1, 1884, to Dec. 31, 1884.

Bailhache, P. H., surgeon. Granted leave of absence for thirty days, Oct. 9, 1884. To proceed to Wilmington, N. C., as inspector, November 10, 1884. Relieved from duty as chief of Purveying Division; to proceed to Philadelphia, Pa., and assume charge of the service Dec. 10, 1884.

Wyman, Walter, surgeon. Granted leave of absence for fifteen days, Oct. 15, 1884. Leave of absence for fifteen days in December, 1884, and thirty days in January, 1885, also for a further period from January 31, 1885, without pay, and with permission to visit Europe, Dec. 8, 1884.

Purviance, George, surgeon. When relieved to proceed to Cincinnati, Ohio, and assume charge Nov. 12, 1884. To Louisville, Ky., as inspector, Nov. 24, 1884.

Austin, H. W., surgeon. To proceed to Boston, Mass., and assume charge, Nov. 12, 1884.

Smith, Henry, surgeon. When relieved to proceed to Cairo, Ill., and assume charge Nov. 9, 1884. Granted leave of absence until January 15, 1885, Dec. 17, 1884.

Stoner, G. W., passed ass't surgeon. Relieved from duty at Delaware Breakwater Quarantine, to proceed to Cairo, Ill., in accordance with former orders, Oct. 14, 1884. To Norfolk, Va., Nov. 19, 1884.

Irwin, Fairfax, passed ass't surgeon. To close Cape Charles Quarantine Oct. 31, 1884, proceed to Washington, and report to Surgeon-General, Oct. 14, 1884. To take charge of the service, port of Georgetown, D. C., and detailed as Acting Chief-clerk, Surgeon-General's Office, Oct. 30, 1884. To Philadelphia, Pa., and Baltimore, Md., as inspector, Dec. 30, 1884.

Mead, F. W., passed assistant surgeon. When relieved, to proceed to Baltimore, Md., and assume temporary charge, December 10, 1884.

Heath, W. H., passed assistant surgeon. Granted leave of absence for thirty days on ac-

count of sickness, October 24, 1884. When relieved, to proceed to Pittsburgh, Pa., and assume charge, December 26, 1884.

Guitéras, John, passed assistant surgeon. To report to Surgeon-General, November 8, 1884. Leave of absence extended fifteen days, without pay, November 14, 1884.

Wheeler, W. A., passed assistant surgeon. Relieved at Chicago, Ill., to proceed to Buffalo, N. Y., and assume charge, December 26, 1884.

Banks, C. E., passed assistant surgeon. When relieved, detailed for special duty; upon completion of same, to Boston, Mass., for duty, October 28, 1884.

Peckham, C. T., passed assistant surgeon. Granted leave of absence for twenty days, December 26, 1884.

Bennett, P. H., assistant surgeon. When relieved, to rejoin his station (Detroit), November 20, 1884.

Ames, R. P. M., assistant surgeon. To report to Surgeon Hutton, at Louisville, Ky., for examination for promotion, November 13, 1884.

Devan, S. C., assistant surgeon. To proceed to Tacoma, W. T., as inspector, October 14, 1884.

Kalloch, P. C., assistant surgeon. Granted leave of absence for thirty days, November 19, 1884.

Glennan, A. H., assistant surgeon. To proceed to Key West, Fla., for temporary duty, October 8, 1884.

Battle, K. P., assistant surgeon. Granted leave of absence for thirty days on account of physical disability, December 6, 1884.

Brooks, S. D., assistant surgeon. To proceed to New York, N. Y., for temporary duty, October 20 and November 26, 1884.

White, J. H., assitant surgeon. To proceed to New Orleans, La., for temporary duty, October 3, 1884. To escort insane seamen to Government Hospital for the Insane, December 17, 1884. Granted leave of absence for fifteen days, December 23, 1884.

RESIGNATION.

Smith, Henry, surgeon. Resignation accepted by the Secretary of the Treasury, to take effect January 15, 1885, December 17, 1884.

APPOINTMENT.

White, Joseph H., M. D., of Georgia, having passed the examination required by the Regulations, was appointed an assistant surgeon, by the Secretary of the Treasury, October 2, 1884.

PROMOTIONS.

Peckham, C. T., passed assistant surgeon, promoted and appointed passed assistant surgeon by the Secretary of the Treasury from December 1, 1884, November 28, 1884.

Ames, R. P. M., passed assistant surgeon. Promoted and appointed passed assistant surgeon by the Secretary of the Treasury, from December 1, 1884, November 28, 1884.

Devan, S. C., passed assistant surgeon. Promoted and appointed passed assistant surgeon by the Secretary of the Treasury, from December 1, 1884, December 5, 1884.

Urquhart, F. M., passed assistant surgeon. Promoted and appointed passed assistant surgeon by the Secretary of the Treasury, from December 1, 1884, December 5, 1884.

The Investigation of Chorea.

Dr. Dyce Duckworth, in opening a discussion on chorea (*Brit. Med. Jour.*, January 3, 1885), says:

"Permit me, then, to state the points on which further knowledge is desirable.

"First, it is required to have a much larger number of cases from which to deduce facts.

"Secondly, the ages and sex of the patients are wanted in all cases, and every case in each reporter's practice should be taken note of, for without this, a fallacy may come in, respecting the incidence of chorea on different classes of patients.

"Thirdly, information is sought as to the general prevalence of the disease in different districts.

"Fourthly, under the head of exciting causes, it is of the last importance to be exact as to the nature of these, and the interval between the exciting cause and the onset of choreic symptoms.

"Fifthly, more complete information is desirable as to the condition of the heart at the beginning, in the progress of, and after the disorder has passed off. It is very important to secure records not only of the state of the heart a few years after attacks of chorea, but also of the subsequent general life-history of such patients. The latter, indeed, has equal significance with the antecedents of these cases.

"Lastly, more knowledge is sought as to the common ailments to which choreic patients are liable. It ought to be possible to determine the average duration of choreic attacks. My colleague, Dr. Andrew, has gathered from a study of cases that this is somewhat over ten weeks—about ten weeks and three days. With gaps such as these in our stock of knowledge respecting chorea, we may rightly feel that there is still much for us to do. To-night, then, I direct your attention to these several points, and beg you to pursue them in your respective fields of observation."

The Application of Dentistry to the Detection of Crime.

Mr. Robert Reid (*Journal of British Dental Association*, Sept. 1884,) enlarges upon this subject, and publishes an instructive case of murder. The room where the murdered man had been struck down was strewn with detached portions of the upper jaw bone, the largest of which extended from the second bicuspid on the left side to the canine tooth on the right, inclusive. The alveoli of the right and left upper laterals were occupied by left central and lateral incisors of the lower jaw. Among the detached teeth were right and left upper lateral incisors, corresponding exactly in shape and size with their fellows. On examination of the accused person, his central and lateral incisors of the left side of the lower jaw were found to have been recently removed, and the corresponding teeth removed from the jaw of the deceased were found to fit into the proper alveolar cavities of the accused.

—Dr. Andrew F. Currier contributes to the *New York Med. Jour.*, January 10, 1885, an interesting paper on "Gonorrhœa in the Female."

Japanese Teeth.

Before the Odontological Society of Great Britain (December 1, 1884), Dr. St. George Elliott exhibited and presented to the museum some very curious artificial dentures of Japanese manufacture. These people had derived most of their technical and scientific knowledge from the Chinese, but, in this matter, they were far in advance of their teachers; for, whilst the latter could only carve a row of incisors and fasten them to the teeth on either side, the Japanese could make thoroughly serviceable dentures, and had been acquainted with the method of fixing them by suction for about two hundred years. The teeth were mounted on hard wood, those in front being made from quartz pebbles carefully ground down, but the process of mastication was performed by copper nails which occupied the place of the molars. One of these dentures had been in use for fifteen years. Dr. Elliott gave a very interesting account of the way in which they were made and fitted.

Tribute to Professor Gross.

The Æsculapian Society of the Wabash Valley, at its annual meeting, passed resolutions of respect to the memory of Prof. Gross, and of appreciation for his long and brilliant career in the labor and literature of the profession.

Items.

—Busk has discovered osteo-arthritic lesions in bones found at Gibraltar, which must have belonged to bears of the glacial period.

—Dr. O. S. Taylor, of Auburn, N. Y., completed his one hundredth year on December 17. He graduated from Dartmouth College in 1809, and from the Medical College in 1813.

—It is said that the reason more physicians in France did not use *Kochsalz infusion* as a treatment for cholera was because they thought it had something to do with the discoverer of the cholera bacillus.

—Dr. Lathrop A. Willis, of Brooklyn, died January 2, in his sixty-first year. He was a graduate of the Albany Medical College, of the class of 1849, and a member of the Medical Society of the County of Kings.

—Indet (*Gaz. des Hôp.; Centralbl. f. Gyn.*) has employed phosphated peptone successfully in cases of vomiting that had resisted other treatment. He gave six tablespoonfuls of the peptone phosphate, and subsequently increased the dose to twelve tablespoonfuls.

—Dr. Ambrose L. Ranney, professor of applied anatomy in the New York Post-Graduate Medical School and Hospital, has been appointed to the chair of anatomy in the medical department of the University of Vermont, made vacant by the death of Professor Darling.

—The *Lancet*, January 3, 1885, says that the oil of peppermint would appear to be a useful application for burns, according to Dr. Brame. The part burned is first immersed in water, and then the oil is painted on by means of a fine camel-hair pencil. The chief effect is the immediate relief of the pain.

—A department of hygiene and the science of micro-organisms has been opened in connection with the chemical laboratory of Prof. Fresenius, at Weisbaden. Dr. F. Hueppe, who has done much work under Dr. Koch at Berlin, has been appointed to the charge of this department.

—The "faith cure" seems to have met with a check, if we may judge by the report of a recent recommendation by the Grand Jury of Denver that an asylum in that place, devoted to carrying out this particular form of treatment, should be closed, on account of three deaths having taken place in it from inanition since Christmas.

—The *Cinn. Lan. and Clinic* (October 4, 1883), says that pruritus ani and the distressing itching of urticaria and mosquito bites can be much alleviated by local applications of menthol. It may be used by rubbing the menthol pencil lightly over the surface, or by dissolving a small amount in alcohol and bathing the part.

—The *Lancet* credits M. Trastour with a communication to the *Gazette Médicale de Nantes*, in which he speaks highly of glycerine in obstinate coughing. He evaporates two ounces of glycerine in a flat dish, and allows the patient to inhale the vapor. Carbolic acid may be added with advantage. The treatment is specially applicable to phthisical patients.

—A State Board of Medical Examiners of North Carolina, its members appointed by the State Medical Society, has been in existence since 1859. No person can practice medicine or surgery without a license from this Board. Although the law provides no penalties, a recent report states that it has accomplished good results in weeding out quacks and forming a healthy public opinion regarding that class.

—At the recent annual meeting of the College of Physicians of Philadelphia the following-named gentlemen were elected to office:

President—Dr. J. M. DaCosta.
Vice-President—Dr. S. Weir Mitchell.
Secretary—Dr. Richard A. Cleemann.
Treasurer—Dr. Charles Stewart Wurts.
Honorary Librarian—Dr. J. H. Hutchinson.
Recorder—Dr. J. Ewing Mears.

—M. Michel, a medical man practicing at Chaumont, in a note to the Académie des Sciences of Paris, publishes evidence confirming the accuracy of M. Marey's communications concerning the part played by water in spreading epidemics. It appears that every year there were a considerable number of deaths at Chaumont from typhoid fever. Recently, a water-supply, which was believed to be contaminated, was cut off; since that time, typhoid has disappeared.

—Dr. Dureau de Villeneuve, in a note presented by M. Marey to the Académie des Sciences of Paris, recommends that distilled water should be generally used for drinking purposes. He argues that pure water is a desideratum, especially during cholera epidemics. Distilled water fulfils this condition, and could be easily obtained by utilizing the condensers of the different steam-engines kept at works. Dr. Villeneuve suggests that water thus distilled should be distributed among the inhabitants of the different districts near the seat of distillation.

—In the *British Med. Jour.*, January 3, 1885, Dr. Elliott relates the case of a patient who had been under his care for dislocation of the elbow forwards and comminuted fracture of the olecranon. Passive motion was commenced in the fourth week, and adhesions afterwards broken down under chloroform. To the comparatively early adoption of these measures, he attributed the freedom from rigidity and almost perfect movement in the joint.

Stephan (*Allgem. Med. Centr. Ztg.; St. Petersburgh Med. Woch.*) says that the application of ice-bags over the supra-clavicular regions during fever is followed by a marked reduction of the temperature. In several cases of typhoid fever treated in this manner he was able to control the fever, while the sensorium remained clear. The explanation offered is that many large superficial veins are situated in the neck, and that by the direct application of heat to them the temperature of the blood is lowered rapidly.

—At the annual meeting of the Paris Cremation Society, the President, M. Koechlin Schwartz, stated that the law proposed by MM. Gambetta, Paul Bert, Tony Révillon, and many Republican deputies, is not yet passed. Cremation remains at present illegal in France. It was generally suggested in the report that there was nothing to prevent cremation in the hospitals. The President insisted on the great security for the public health by the adoption of the system, and mentioned that in Italy there had been 396 cremations, and in Germany 186. The tariff for the transport of corpses to Italy for cremation was circulated. It is rather high, and can only be resorted to by rich families.

—A writer (*St. Louis Medical Journal*) has had a so-called oleate of chloral made, which, he says, has been used with much success in pruritus ani, eczema, and other affections associated with much itching. The compound consists of one drachm each of camphor and chloral, and one ounce of oleic acid, thoroughly mixed together. Camphor and chloral in equal parts, forming a liquid, has long been known as a valuable remedy in cases where local anæsthesia of the cutaneous nerves is desired, and has been employed in neuralgia and pruritus. The addition of the oleic acid will undoubtedly increase the penetrating power of the mixture. It may thus be found useful in allaying the itching, while other means are employed to secure permanent relief.

—Here are two current news items which present a startling yet altogether logical comparison. Massachusetts last year enjoyed an almost total immunity from small-pox, but nine cases, with only one death, having been known to occur in the entire State in a twelvemonth. In Kashmire the mortality during the year was of almost incredible proportions. The history of twenty-five families was recently taken, in which it appeared that, out of 190 persons, 100 died of small-pox. In Kashmire there is no vaccination; in Massachusetts it is absolute, compulsory, and as general and systematic as tax-paying. Peace hath its victories. If modern medicine had done no other single thing than demonstrate its control of one of the most terrible of human ills, it would be deservedly honored.

—Before the Sheffield Medico-Chirurgical Society (December 4, 1884), Mr. Atkin read the notes of a case of congenital coccygeal tumor. The growth sprang from the right side of the sacrum and coccyx, the bone on the left being deficient. Double talipes equino-varus was also present. Microscopic sections of the growth were shown, when it was seen to be of a very mixed character; fatty, fibrous, and cartilaginous elements were seen, as well as well-marked ducts, lined with columnar-shaped epithelium; cysts were also present, interspersed among the fibrous tissue, containing a semi-opaque, yellowish, granular material. Mr. Atkin made remarks on the different descriptions that had been given as to the pathology of these tumors, and laid stress on the total absence of anything that might be considered sarcomatous.

The practical conclusion to be drawn from these cases is, that reliance cannot be placed upon a single examination of the urine, but that in any doubtful case of chronic disease it is our duty to examine the renal secretion repeatedly, noting whether albumen appears after a heavy meal of flesh, and whether the urine of abstinence is of abnormally low specific gravity. I have seen patients who certainly did not have Bright's disease, but in whom an irritant drug or an alcoholic excess would produce albuminuria. It is to my mind very probable that such people will eventually develop renal disease. At any rate these cases have suggested to me that possibly as we employ purgatives to make a so-called therapeutic test in a case of suspected typhoid fever so we might use cantharides, turpentine, or other irritant drug in a case of suspected Bright's disease. If on trial it should be found that a slight irritation would seriously affect the urine, the case should be looked upon with the greatest suspicion.

QUERIES AND REPLIES.

Eds. Reporter:—

I noticed in the Reporter some weeks ago, a remedy for nose bleeding, namely, a piece of salt pork passed up the nostril. Since reading the article, I have tried it in three different cases without the slightest effect. Probably the altitude at which I live (7,500 feet) may have something to do with its failure to act. I use the injection of the solution of the persulphate of iron up the nostril, and it acts in "great shape." Yours truly,

Alex. Hazard, M. D.

Eds. Reporter:—

In your issue of December 6, 1884, article, "Treatment of Lupus," I desire to know at what time the scraping is done with the spoon? Is it immediately after making the application, or some hours afterwards? J. S. D.

Ans. The scraping is done first and the caustic then applied.

Eds. Reporter:—

In a case of complete obstruction of the bile ducts (hepatic and cystic), how long should a patient, an otherwise healthy adult male, expect to live, and what will be the immediate cause of death without intercurrent disease.

G. F. J.

Ans. This question cannot be answered with any degree of authority as to the duration of life. The cause of death would probably be cholestoremia.

THE

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ORIGINAL DEPARTMENT.

LECTURE.

ABSTRACT OF A LECTURE ON PSORIASIS, DELIVERED AT FRANKLIN HALL, JERSEY CITY, N. J.

BY JOHN V. SHOEMAKER, A. M., M. D.

Mr. Chairman and Gentlemen of the Hudson County Medical Society: Permit me to express many thanks for the invitation to speak before your society upon this occasion. I greatly appreciate the opportunity you have thus given a brother practitioner of meeting the members of a society who are so well known by the profession at my home. I have, however, a great hesitation in talking upon a subject that is so familiar to the veteran members of the profession who are present at this time. I observe in the room one gentleman in particular, Prof. Alfred Post, one of the oldest and most proficient clinical teachers in the country, before whom I am still more reluctant to speak upon the subject selected for this afternoon's discussion. I hope, however, that you as well as our distinguished friend will bear with my shortcomings, while I endeavor to briefly describe psoriasis in a clinical manner, from two cases brought from the Philadelphia Hospital for skin diseases. The first patient, this young boy fifteen years of age, has, as you will observe, an eruption on the scalp, face, arms, and hands, with a few spots scattered over the body, which appeared almost one year ago. The spots have always been dry, never disappeared, but have gradually during this time become more marked. The majority of them are about the size of an ordinary pea, being red, slightly elevated, and some of them are covered with dry, white scales. On the scalp, forehead, and dorsal surface of the hands, the eruption is more marked. It is also present not only in the form of the patches just alluded to, which has the appearance of drops of mortar, hence called psoriasis guttata; but there may also be seen smaller spots about the size of a pin's head, which is usually spoken of as psoriasis punctata. The eruption generally appears in the form of these latter slightly elevated, round, and reddened spots, and increase in size to the former, which are present here in large numbers. The larger as well as the smaller patches are separated by intervening healthy skin. The scales have been washed or dropped off, to a large extent exposing the dry, reddened spots raised above the level of the skin.

In the next patient, a man of forty-eight years of age, the eruption is seen over the general surface, being termed psoriasis diffusa, or psoriasis universalis, and the symptoms will be found to be even more striking than in the first case. A few of the patches similar to those in the first patient can be recognized, as well as many others having all sizes and shapes. Here are some on the back and arms having the appearance of the ordinary coin-psoriasis nummularis, or circumscribed in form-psoriasis circumscripta, and others being disk-like are named psoriasis discoidea. Again bands of the eruption may be seen on both the chest and back, and are thus termed psoriasis gyrata. The eruption begun, as the patient points out, by the appearance of these small, slightly elevated spots about the size of a pin's head, covered with dry white scales, and so spread until the entire body became covered with the disease.

The spots on the back and limbs will be seen to be somewhat separated by intervening healthy skin, but the abdomen is one immense patch of deep infiltration. The patches are also well marked on the extensor surfaces and the scalp, which regions are favorite localities for the development of the eruption. The scales have been exfoliated almost from all the patches, leaving the surface red, elevated, and tender. Large quantities of the cast-off scales, the patient states, are usually in his bed-clothes and under-clothing.

A close examination of the scalps of both patients will show that while the eruption is well marked, yet the hair has not fallen out, but has retained its natural lustre and color. In the second case it will be seen that the disease has affected the nails, which do not extend beyond the ends of the fingers; they are also thick, rough, lustreless, brittle, fissured, and are brownish in appearance.

The eruption in some cases may continue throughout its course in the form described in the first case, or it may spread either gradually or rapidly to certain parts or over the whole surface, as in the present case. It may also remain without change throughout the patient's life, or by treatment the surface may assume its normal appearance without any pigmentation or scarring, to again, very often, crop out even in a more severe form.

It will be noticed in both these cases that itching, which was present at the first appearance of the eruption, has now entirely subsided. Itching may be entirely absent, or the disease may be attended with it in its early development, and subside with the persistence and extension of the eruption.

While the eruption upon these cases might resemble many other cutaneous diseases, yet they are more likely to be mistaken for eczema squamosum and syphiloderma. In the former disease the primary lesion is erythematous patches, vesicles or pustules, which are succeeded by moist spots, crusts, and scales, the latter not being white or silvery in appearance, and being situated on bright red patches—by preference on the flexor in place of the extensor surfaces, and itching, which is usually marked, lasts throughout the entire course of the disease. On the other hand, in these cases, the primary lesion was the masses of epidermic scales and the scales that can be seen are white or silvery in color, and are situated on dark red patches located by preference on the extensor surfaces. Further, the symptom of itching, which was slight, was only present when the patches first appeared, and soon subsided. The squamous and papular variety of syphilis of the skin might also be confounded with this eruption, especially in its early stages. The scales in syphilis will be seen to be of a dirty color, and the red spots on which they rest extend beyond them, while in these cases the scales are whitish or silvery in appearance, and in some of these spots still intact, they extend beyond the red bases which they cover. The absence in both cases of the preceding evidences of syphilitic fever and the long chain of symptoms common to it, together with the absence of pigmentary stains, scars, mucous patches, and enlarged lymphatic glands, would be additional conclusive evidence against the patient's being afflicted with a syphilitic skin affection.

The pathological changes in psoriasis are well demonstrated in the section that has been made from the second case, which is now placed beneath the field of the microscope, and will be passed around for your examination. You will observe from this section that the epidermis is greatly developed, the papillary layer of the derma is somewhat enlarged, being filled with cells, the blood-vessels are dilated, the glands are normal, but the hair follicle is changed, the external root-sheath being increased in size, and the connective tissue of the derma is the seat of considerable infiltration. It has been shown that these inflammatory changes just pointed out begin primarily in a hyperplasia of the rete and the external root-sheath, the cutis being involved secondarily.

The cause of the appearance of this disease in these patients can probably be more clearly demonstrated by questioning them and receiving their answers. I will first inquire into the history of the boy.

How long has this eruption been on your body?

About one year.

Have your habits been good?

Yes, sir.

Have you any idea of the cause of this eruption?

No, sir.

Have you always been well?

I have never been sick, but I have some pains at times around the upper part of my body or in the arms.

How long have you noticed these pains?

Can't remember.

Did they come before the eruption?

I think they did.

Have you ever tried to get relief from the pains you refer to?

No, sir; I concluded they were growing pains.

Point out how and on what part of your body these spots first appeared?

They came first on my scalp and then on the arms, in this way (the patient pointing out the small red, isolated spots about the elbow and wrist).

I next pass to the second patient. Will you give your age; mention if your habits are good, and if you ever had any disease; when and upon what part did this eruption first appear, and do you know what could have caused it?

I am forty-eight years of age; I work steady at my trade—a machinist—and have always been healthy, except this trouble. This skin disease began eighteen years ago on my shin, and soon covered the whole body. Several doctors have cured me at different times, but it comes back again. I think my rheumatism has caused it.

How do you know it is due to your rheumatism?

I believe you told me.

Did you not say frequently when I questioned you that you never had rheumatism?

Yes, sir.

From the personal history of these cases you can surmise the cause of the psoriasis; the rheumatism, no doubt, keeps the disease active in both of the patients.

It might be of interest for you to know that the second patient repeatedly denied that he ever had rheumatism; but seeing his joints swollen one day, I inquired if he had been in this condition upon any previous time. "Yes, sir," he answered; "I often take cold in this way, but it soon passes off."

You will therefore see he did not comprehend, as many patients similarly affected fail to do, what was meant by the word rheumatism.

It will be found upon a close observation of many cases of psoriasis that either rheumatism or gout are frequently the exciting cause of the disease. The accumulation in the blood of certain excrementitious substances, either from these or other diseases, may develop psoriasis.

The speaker alluded to the views of those who believed the disease was the result of syphilis, and pointed out how different the eruption was from syphilitic skin affections, and that the mercurials and iodides that acted decidedly upon the latter had little or no impression upon psoriasis. The parasitic nature of the disease originated by Lang was mentioned, but the theory was shown not to as yet have been received with much favor.

The aim of the treatment in both cases that have been before you will be to remove, if possible, the rheumatism by the employment of suitable remedies for it.

In case of the boy, the following prescription has been found to lessen the pains: Salicylate of soda, 100 grains, and two ounces each of the sweet spirit of nitre, and the infusion of digitalis; one to two teaspoonfuls of this mixture should be taken in water three or four times daily.

The second patient is now taking, with advantage, the following prescription: Sweet spirit of nitre, two ounces; two ounces each of infusion of colchicum and infusion of digitalis; and aloin, five grains. From one to four teaspoonfuls of this combination is taken four times daily. An occasional mercurial or saline purge will also be of advantage in both cases. If the rheumatism and the eruption in both instances will not vanish under the internal medication and the employment of the local means presently to be mentioned, I will then give small doses of arsenic, for its nutritive effect upon the system. Arsenic is of no benefit in the acute stage of the eruption, and should only be employed in the later stages, and then it should be pushed until a decided impression is made upon the system. In giving arsenic, I usually employ arsenious acid or sodium arsenite in about one-twentieth of a grain dose three times daily, in preference to the solutions of arsenic, which are often improperly prepared or have become deteriorated by being kept on hand for some length of time. In case of long-standing psoriasis, the arsenic can be made to act more promptly by giving it hypodermically, the sodium arsenite being used in from one-twentieth to one-half a grain, injected once daily.

In treating the majority of cases of psoriasis, the alimentary canal, the kidneys, and the skin, should be made active to remove from the system the elements that are keeping active the disease. By treating the exciting cause, pouring out the waste products in the manner just named, and by the nutritive action of the arsenic, should it become necessary to administer it, psoriasis can be controlled. There is no specific for psoriasis, either in arsenic, the tincture of burdock seed, or chrysarobin, so highly recommended by Napier. The latter has a purgative action given internally, and will in that way cause the eruption to pale, just as any other purgative would do administered for some time. In addition to the internal treatment, which is all-important, and upon which I always place the most dependence in, hoping to

permanently affect the disease, is the use of local means. The most important local means to use are baths: the hot air, the vapor, the simple water, and medicated; and by their employment the skin is made active, the effete products are poured out, and the system is thus relieved of the elements that conduce to keep up the disease.

Finally, the use of either chrysarobin or chrysophanic acid, one of the mercurials, tar, carbolic acid, naphthol, and thymol in the form of a fixed dressing, or by the incorporation of one of them in a fatty substance and applied to the skin, often acts rapidly in removing the infiltration; but the eruption will again return unless the cause for its existence in the system has been eradicated. I consequently place very little reliance upon these stimulating remedies that but act for the time.

COMMUNICATIONS.

SOME OF THE COMMON DISORDERS OF INFANCY AND EARLY CHILDHOOD.*

BY G. A. HILL, M. D.,
Of Williamsport, Pa.

Probably no one who has devoted years of thoughtful study and attention to the maladies of infant life will but agree with me that herein are found much that is peculiarly instructive and interesting.

From the first cry of the new-born babe to the years of independent thought and speech, there is a volume of absorbing interest, worthy the most careful study of any physician. The helpless suffering of the little patient, the plaintive cry and looks of distress, his only language to express his perturbed sensations, his pallid face and eyes filmy and sunken, or a countenance gleaming and restless, with the flush of exalted temperature—all these call in language intense and eloquent for sympathy, and must forcibly remind the physician of the responsibility he has assumed.

I have heard it frequently asserted that, owing to the obscurity of diagnosis and enforced medication, drugs can be of little avail in the diseases of early childhood. I think—indeed, I am sure—taken in a general way this is a mistake. True it is that our diagnosis must rest solely upon subjective signs, except perhaps in lung troubles, but it is at the same time true that these subjective signs are not rendered doubtful or obscure by wilful or ignorant misrepresentations. We have no prejudices, no false modesty, no concealment of facts to deviate the current of diagnosis. If we carefully scrutinize the countenance, note the cry, the gestures, and give due regard to the general behavior of the child; if we are careful to learn something of his previous habits and management, and likewise study attentively the skin, the eye, the pulse, the ejecta, and all those various other phenomena that yield their share of information to the observant mind, there can, I think, be little reason to hesitate in coming to a satisfactory conclusion. It might be well to mention a not infrequent source of mistaken identity in the complaints of childhood. The mother or nurse, in her lack of the proper appreciation of existing conditions or by her over-anxiety to impress the physician with their seriousness, is liable to make statements which are not strictly true.

Many children are born into the world with constitutions vitiated or weakened by hereditary taint and thus afford a favorite seat for subsequent diseases; but however desperate seems to be the outlook in these cases, we are culpable if we give way to untimely despondency. I believe more than one infant has been sacrificed upon the altar of a discouraging prognosis, when a successful issue demanded only hearty and persistent effort in the right direction. It is well known that children have a more tenacious hold upon life than adults; the springs of existence are in them more elastic, and sometimes rebound quite unexpectedly to the touch of skill and experience.

It is not my design, nor would it be possible, to treat exhaustively of this great subject of the pathology of infant life within the limits of this paper; as my heading indicates, I shall attempt nothing further than a few hints and suggestions relative to the physical status, the management and treatment of the sick child as we find him in his home of comfort or poverty.

Perhaps I may approximate the truth by stating that the disorders of childhood are referable to one or more of four causes, and this proposition suggests the following generalized heads: anatomical peculiarities, excitability, morbific influences, and heredity, of which in their turn I will offer a few cursory statements.

On inspecting a fœtus at full term, we are struck by what appears to be a singular disproportion in the development of the body: the head is relatively much too large, the abdomen protruding and pendulous, the hips narrow, and the legs much under size, looking as though they were shriveled. Without attempting a detailed in-

*Read before the Lycoming County (Pa.) Medical Society.

quiry into the causes of these peculiarities, it may be stated that the arrangement of the prenatal circulation of the blood is amply sufficient to account for them.

The internal anatomy of the infant also differs considerably from that of the adult, the liver being exceedingly large and vascular, and well calculated for its active work of assimilation, which in the child is so much in excess of waste. The bile, notwithstanding this redundancy and vascularity of the liver is secreted in minimum quantity, as shown by the color of the stools, compared to that of after years. I take it that this may account, at least partially, for the intestinal indigestion to which very young children are so liable. The stomach is small, rugous, and less curved, with the œsophageal opening quite near the cardiac end, and thus easily overloaded. The readiness with which infants become cyanosed, and their liability to pulmonary congestion, will find an explanation I think in the relatively small calibre of the pulmonary veins and air vesicles. The foramen ovale frequently remains unclosed for months or even years after birth; though this fact may have no significance pathologically, since after the cord is tied the blood-pressure becomes equalized on both sides of the heart; this, with the natural obliquity of the valve, causes its practical closure. However, in a highly febrile state, when the left side of the heart is goaded to unwonted activity might not this balance be for the time overcome, and a sort of regurgitation take place with each pulsation, giving rise to engorgement of the lungs, embarrassed respiration and dicrotous pulse? The blood in its passage from the right auricle to the corresponding ventricle is pumped into the lungs; thence to the left auricle to be again forced into the left ventricle. Now if by any chance the ovale is not able to withstand the pressure, a portion of the blood must of necessity flow back again from the left to the right auricle, causing a secondary contraction of that organ before the left ventricle has had time to empty itself and expand for the reception of more aerated blood. This, it seems to me, might produce the conditions named.

Other anatomical peculiarities might be noticed, which as they possess little or no importance in diagnostic pathology their description would only prolong this paper unnecessarily.

We come next to consider nervous influence. The nervous excitability of the young child is so intimately connected with all pathological states, either immediately by direct action, or secondarily by reflex involvements, that it becomes an important matter for consideration. This excitability under conditions of perfect health, while poised as it were upon a balance of exquisite sensibility, comprises the stimulus which acts upon and gives tone and function to the peculiar organ of which it is a part.

The brain and spinal cord are acknowledged to be the centres of motion and will, and from them proceed all the nerves of the body, through which the electric current of sympathy and association is conducted to every part of the body. It may be stated in a general way that nerve-fiber is either motor or sensory; of the former we have voluntary and involuntary motion; of the latter, sensation and intelligence.

When we remember the anatomical distribution of the nerves, we observe how they interlock and communicate directly or indirectly with each other, and form, as it were, one universal chain of sympathy, giving unison of action throughout.

It may be further stated that each of these systems of nerves requires its own peculiar stimuli; and that the irritation or excitement produced is in proportion to the degree to which it is applied, the length of time kept up, and the state of susceptibility at the time in the organ or organs.

By excitability, then, I mean that state of an organ which causes it to respond to impressions extraneous to it. These impressions are either normal or abnormal; of the latter we have the action of disease germs, of a foreign body, as worms, or indigestible food, of violent passion, of fear and apprehension, etc., etc., showing the exercise of mental as well as physical irritants.

Healthful stimuli, on the other hand, produce their effects in the normal development of the mind and body, not so suddenly, but just as surely. This normal excitability is increased by even moderate morbid impressions when sufficiently long-continued, and thus one organ perverted from its natural function reacts upon others until finally the whole system becomes perturbed, and then we have fever, rapid pulse, and other systemic disturbances, indicating that disease is present.

Among the predisposing causes of disease in young children, aside from what has already been said, may be mentioned in passing the delicacy and laxity of the muscular fibre, as shown by the tendency to prolapsus ani; the fineness and softness of the skin and the mucous membranes rendering these organs so favorable to absorption; the easily-disturbed peristalsis of the bowels; improper food; malformation, etc., etc.

Directly upon leaving the hands of the accoucheur, the new-born child has entered a gauntlet of many dangers. It may be but a few hours after birth that he experiences his first agony in the form of a colic.

I think it is the duty of the physician to have a watchful care over the very first handling, washing, and dressing of the infant; much of his comfort or misery is due to his proper or improper dressing.

The nurse should receive the infant in a very soft piece of flannel, carefully warmed, and proceed at once to wash it; before applying the water. it should be thoroughly anointed with melted vaseline; this bland, soothing material is well calculated for the purpose, mixing easily with the caseous substance on the head and in the folds and flexures of the body, and is afterward readily removed by a neutral soap, leaving the skin soft and not liable to become chafed.

After the washing, the physician himself should dress the cord-stump, for to be rightly done it is no unimportant matter. A soft linen or muslin roller, a little wider than the length of the stump, some mutton tallow and a string are all that are needed. The nurse holding up the cord by the end, the tallow is applied to the navel, and then the roller is carried several times around it and secured with the string. As to the bandage almost universally applied to the little sensitive, compressible body, it cannot, in my opinion, be too severely denounced. It seems quite reasonable to suppose that it prevents peristaltic action of the bowels, compresses the liver, and obstructs circulation through it, and in this way is responsible for much of the colic so common to babies a few hours after birth.

It is a very common practice, likewise, to pin up the dress and petticoat waists much too tightly; this, for the very reason above stated, should not be permitted; a loosely-fitting, very soft flannel or Canton-flannel shirt, a diaper of the same material, a petticoat without constricting bands, are the rational wardrobe for the infant that has just laid aside one of such surpassing softness and flexibility as the amnion and its fluid contents.

Among the many departures from a normal state, to which very young children are liable, none are so distressing or so frightfully menace the life of the little sufferer as *convulsions*. Children of a highly nervous organization are the most likely to suffer.

It is needless to say that these terrific manifestations are generally symptomatic of the operation of some irritant, whereby the powers of the constitution become so impaired that the nervous system is no longer able to resist the strain and an explosion occurs. Sometimes, however, they are induced by sudden shock; in such cases the sensorium is the primary seat of the trouble.

Previously to the spasm, if the condition of the child has been closely watched, there will generally be found considerable derangement of the stomach and bowels; the countenance will show an unnatural expression; there will be, from time to time, a momentary distortion of the features; he will give evidence of pain, clench his fists, and throw his feet about. A peculiar, contracted appearance of the nostrils may be noticed about this time in many instances.

(*To be continued.*)

INEBRIETY AMONG RAILROAD ENGINEERS.

BY T. D. CROTHERS, M. D.,
Of Hartford, Conn.

As a class, railroad engineers in active service are exceptionally temperate men. The daily performance of their duty requires a clear brain and steady nerve, which is very soon broken up by any use of alcohol.

The nerve tension to which they are subjected in active work produces, after a time, many and profound nerve disorders. One of the hints of breaking down in this class is excessive caution and timidity. Often men who have had an accident and escaped without any external injury, will soon exhibit signs of mental shock, in what is called loss of nerve, or childish caution. Their trains will always be late, they will "slow-down" and slacken speed from no reason except some internal fears, and have to be changed to other work. Insomnia and dyspepsia are also common signs of exhaustion. After the day's run, they will be unable to sleep or properly digest food, and alcohol in some form will be found to give relief. This will soon merge into inebriety, and the drinking will be confined to the hours after the work is over. During the day they drink nothing, except perhaps beer, and that in great moderation; but when night comes, they use spirits to excess again. After a time such men will show marks of failure in excessive caution or recklessness, and be very irregular in their management of the engine. They will have heated journals and broken engines beyond the average experience.

These and many other indications soon render them unfit for the work. It is the opinion of a

competent authority, that an engineer who begins to drink will be, as a rule, obliged to give up work in two years from general incompetency, although his use of spirits may be at home and largely concealed, and in what is called general moderation. A fact has recently come to my notice with its explanation that is of unusual interest. On a through line running out from New York it has been observed that nearly all the engineers who were changed and discharged for drinking were on the night trains, and were considered the most competent. The conclusion was that men on these night runs were more likely to drink, and the individual opinions of railroad managers agree on this point.

The following is the opinion of a practical engineer, which is so literal and full of psychological suggestion that it is given in full:

"You see, in the night time, an engineer's eyes, thoughts, and all, are confined to a very small space; it's nearly or quite dark inside the cab, and if his engine is working all right, carryin' her water good, lots of steam, and the fireman wide awake and lively, that engineer don't have much to do with his eyes, only to look out ahead over the little space made bright by the headlight, and his thoughts are naturally confined to what his eyes take in. In the day-time it's different; he can look around and see lots that's goin' on. He notices that this field of taters looks good, and wonders if his little patch at home will turn out as well; he sees a fellow fishin' and remembers the last mess of trout he caught in the Shohola; he sees a woman and a baby in the little white house near the big curve, and his thoughts fly back to his home and to his wife and children, and he wonders what they are doin' just now. All this he can take in, and be tendin' to business strictly; but in the nighttime all is changed, and his vision and thoughts, as I said, are confined to the small spot made visible and distinct by the head-light, and his ideas naturally follow the rails. He remembers that the culvert just ahead is the very spot that was washed out last spring, and nothing left under the ties and rails for ten or fifteen feet; true, his engine jumped the chasm, and only five cars loaded with express matter and baggage, went down, and were smashed and piled on top of each other; but it might have been the ten cars of emigrants that were coupled in the rear, and it isn't pleasant to think what might have been. Just around the curve is the place his engine struck a draw-head some careless man left lying the track; his engine only turned over on her side, and fortunately the air-brakes had so stopped the train that no further damage was done; but he shudders as he recalls the sensation he experienced while the engine was turning over and crushing its mad way through the ties, and it isn't pleasant to think of. He flies over a huge embankment at a pace of forty miles an hour, and thinks of the feelings that were his on a certain trip last winter, when a side-rod came crashing through the side of the cab while passing over this same embankment. In the cut just ahead is where on the last trip a watchman, intent on watching a train on the opposite track, had forgotten the express which was due, and the horror and agony depicted on his face as the pilot threw him high in the air will never be forgotten, neither will his mangled and stained body, picked up and cared for as soon as the train could be stopped. And so on every mile of the road something of the kind is brought to mind as his thoughts follow the circle of light ahead, which flashes and changes constantly, now shining on a bridge, now showing an embankment, flashing its rays now on a house, now through trees and foliage; and if the man is easily bothered or worried, he gets very nervous indeed, and wishes he was at the end of his trip—anywhere off the rail.

"Why, I have known men to give up the best train on the road, and big pay, because they had to run in the night time, and take trains that were harder to run and poorer pay, simply because the latter ran in daylight. Yes, engineers do sometimes get frightened and lose nerve; and it is not to be wondered at when we think of his standing one hand on the throttle and his other on the reverse lever, with his thoughts going back to incident and incident of his busy hazardous life, on each curve and straight line of the road as revealed by the head-light of the engine."

Here is clearly outlined that fact so often seen in all circles of life of breaking down from nervous strain, where the mind has no chance to obtain relief. It is not the strain of the work alone, but the inability to get rest from other thoughts and impressions.

No wonder neurasthenia, nerve and brain exhaustion will follow, and alcohol will be found a most seductive narcotic. A most practical fact should never be forgotten by physicians who are called to treat railroad engineers, that is, never to give any form of alcohol as a medicine. Railroad officials are beginning to recognize the especial danger on these night runs, and change the train gangs often to day work.

It seems to be apparent from many facts, that

inebriety among railroad engineers is very precipitate and fatal.

A degree of degeneration is present that makes recovery difficult.

In three cases of this class I have seen, paralysis was present in each one. The use of alcohol had been confined to a very short time before they came under observation.

My object in this note is to call the attention of physicians and surgeons who are called to treat this class to the nature and character of inebriety seen among them. Also to ascertain if men who work on night trains are more likely to be inebriates than others who work in the day? How far the nature and character of engineers' work favor or retard certain diseases of the brain and nervous system?

PHENOL-CAMPHOR.

BY THEODORE SCHAEFER, M. D.,
Of Beecher, Illinois.

The writer noticed (in December, 1882,) the important fact that, when the common or Japan camphor and crystallized carbolic acid are mixed together and subjected to heat, a colorless liquid would be the result. The only reference he finds so far with regard to this reaction occurs in the very excellent and valuable scientific publication of Dr. E. R. Squibb, "Ephemeris of Materia Medica," etc., on page 673, vol. ii., No. 5, where a brief allusion appears under the appellation of "Compound Alum Powder." Dr. E. R. Squibb, however, in a letter to the writer, states that he has "several times before heard of this reaction between phenol and camphor."

Phenol-camphor is best obtained by heating crystallized carbolic acid until it melts, and then gradually adding camphor; a clear liquid is obtained, which is characteristic on account of its permanency. In preparing this substance, the writer uses equal parts of camphor and of carbolic acid. It remains liquid for an indefinite time, and does not solidify on being subjected to the low temperature of a frigorific mixture of snow and sodium chloride. Phenol-camphor ($C_8H_{11}O$ [?]) is a colorless, refractive liquid, possessing the fragrant odor of camphor, entirely extinguishing the one of carbolic acid, and has a sweetish camphoric, but biting taste, not as caustic as that of carbolic acid, somewhat benumbing the tongue. It is soluble in alcohol, ether, chloroform, and ethereal oils, but is insoluble in glycerine and water, being heavier than the latter. I have not had occasion to determine the boiling-point and the specific gravity of phenol-camphor. When ignited, it burns with a smoky flame. I have reason to believe that this compound is a chemical substance. Prof. Ira Remsen, of Baltimore, Md., in a letter to the writer, states that "I think it not improbable that the substance you speak of may be a chemical compound."

I have used phenol-camphor as a local anæsthetic in odontalgia, introducing it on cotton into the cavity of a carious tooth, with good success; and can speak of it favorably as a local anæsthetic in the ingrowing of the toe-nails.* This substance can be likewise used as an antiseptic. It mixes well with paraffine, cosmoline, and many oils. In impregnating cotton gauze (antiseptic gauze) phenol-camphor may be used as a substitute for carbolic acid. Phenol-camphor is less irritating, less caustic, than carbolic acid, and has the advantage of possessing a pleasant odor.

HOSPITAL REPORTS.

LECTURES ON INSANITY.*

Delivered at the University of Pennsylvania,

BY CHARLES K. MILLS, M. D.,

Lecturer on Mental Diseases in the University of Pennsylvania; Consulting Physician to the Insane Department of the Philadelphia Hospital; Neurologist to the Philadelphia Hospital; and Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic.

Reported by WILLIAM H. MORRISON, M. D.

LECTURE I.

Introductory Remarks—Definition—Classification.

GENTLEMEN: The first American course of lectures on insanity was delivered in this University by the celebrated Dr. Benjamin Rush, about the close of the last century. The same great man was the author of the first systematic treatise on mental diseases published in America. This work, issued in 1812, and entitled "Medical Inquiries and Observations on Diseases of the Mind," was in many respects in advance of its times, and abounded in striking illustrations drawn both from literature and experience.

Until 1883, strange to say, it was the only systematic treatise on insanity ever published in this country. Dr. Isaac Ray, it is true, was the author of three valuable works on medico-psychological subjects, namely, "Mental Hygiene," the "Medical Jurisprudence of Insanity," and a volume of "Contributions to Mental Pathology," but neither of these books was a general treatise on insanity.

*I have used it, in combination, in certain cutaneous eruptions due to cryptogamic cause.

*These lectures, which will be continued at intervals during the year, are placed among "Hospital Reports," because most of them will contain records of cases discussed before the class. The first two lectures are mainly didactic.

In 1883 three American text-books appeared, those of Hammond*, Spitzka†, and Mann‡. I am frequently asked by students as to recent works on insanity, and therefore make these remarks by way of introductory. A new English work of much merit has also just appeared, a volume of clinical lectures, by Dr. T. S. Clouston‖, of the Royal Edinburgh Asylum for the Insane.

Of comparatively recent German text-books, that of Krafft-Ebing§ is preëminent. It has been the fount of inspiration for much of the work of American writers on psychiatry. Of French contributors of late date I need only mention Luys, Billod, Bra, Voisin, and Ball, to each of whom we owe a volume worth consulting.

Insanity should be studied as are other diseases; but how can this be done, when as a rule, even those who go into asylums and hospitals as superintendents or assistants are, to use the words of Crichton-Browne¶, "unprepared by previous training to sift and classify the special phenomena that there fall under their notice, even if they had the leisure and disposition to do so. Unacquainted with the physiology of mind, they are bewildered by its morbid manifestations, and lack that knowledge of terms and those habits of thought that are essential to an accurate analysis of psychical derangements."

Through lectures and special instruction, the University of Pennsylvania is now endeavoring to provide some equipment for this work to those going out from its halls.

Your attendance upon the course of lectures to which this is the introductory is voluntary. The number present shows that the subject has intrinsic interest to the medical student. I wish, however, to repeat here what I have said on this subject an another occasion,** namely, that, attendance upon lectures on mental diseases should be compulsory to medical students. Everything taught in a medical school should be compulsory, should be thoroughly taught, and should be examined upon by the teacher. Only from this method of teaching can the best results be anticipated. In a school like the medical department of the University of Pennsylvania, psychiatry should be taught regularly in the third year.

Too often students and physicians are frightened from the study of psychiatry by the difficulties, or supposed difficulties, in the way. These are not altogether unreal, but they are not as great as they are often supposed to be. The perfect alienist would, perhaps, be a great psychologist as well as a practical physician; would be able to discuss the problems of Hamilton, Spencer, and Bain, as well as to go into court with a Ray, a Tuke, or a Spitzka; or prescribe with a Magnan, Clouston, or Rush. Much less than this, however, will be far more than will be usually required. The more you know the better, but it is only imperative that you grasp that portion of the field of psychology which is directly connected with the physiological studies and practical work of the profession of medicine—to quote Clouston, you can limit yourselves to "Mind, as it concerns doctors."

I shall aim to give in the concisest manner a general idea of the present status of psychiatry. After discussing briefly the definition of insanity, the methods of classification, and a few points in general symptomatology, the different forms of insanity will be taken up in order, and each will be considered after a very simple plan, namely: (1) the definition; (2) the chief symptoms; (3) illustrations; (4) diagnosis, prognosis, and treatment; (5) important medico-legal points when they arise.

Cases will be shown to you during our visits to the hospitals,* and will be discussed in greater or less detail, as circumstances permit. Occasionally an entire lecture will be devoted to a prominent Philadelphia medico-legal case.

Our subject is *mental diseases* or *insanity*. What is insanity? This question, like so many others, is more easily asked than answered. Definitions at best are generalities, usually vulnerable at more than one point. No definition of a subject so broad, so shifting, and so intricate as insanity can be free from objection. Dr. Savage† says with force that "we can no more define insanity than we can, by definition, give an impression of a rainbow or a landscape;" and the best German writers on psychiatry, as noted by Spitzka, do not attempt to give a definition of insanity at all.

"As Echo replied to the Painter in Ansonius, 'If you must needs paint me, paint a voice; if you will describe it, describe a fantastical conceit, a corrupt imagination, vain thoughts and different—which who can do? The five and twenty letters make no more variety of words in diverse languages, than it produces diversity of symptoms in several persons.' "‡

Why need we disturb ourselves to define insanity? Certainly cases of insanity can be both diagnosticated and treated by one who has not at his tongue's end some smoothly-sounding definition. One, and perhaps the main reason why it is well to have some definition at command is that everyone who has to deal with cases of insanity is liable to be called into court in the capacity of a witness. As a rule, not without exceptions, however, juries, lawyers, and judges, have little or no practical knowledge of insanity. A definition at best is but a generality, and those who know the least about a subject are inclined to lay most

*A Treatise on Insanity in its Medical Relations, by Wm. A. Hammond, M. D., etc., New York: D. Appleton & Co., 1883.

†Insanity: Its Classification, Diagnosis, and Treatment, by E. C. Spitzka, M. D., New York: Bermingham & Co., 1883.

‡A Manual of Psychological Medicine and Allied Nervous Diseases, by Edward C. Mann, M. D., Philadelphia: P. Blakiston, Son & Co., 1883.

‖Clinical Lectures on Mental Diseases, by T. S. Clouston, D., Philadelphia: Henry C. Lea's Son & Co., 1884.

§Lehrbuch der Psychiatrie.

¶Brain, October, 1880.

**Proceedings of the National Association for the Protection of Insanity, The American Psychological Journal, April, 1883.

*The lectures delivered by Dr. Mills before the classes of the University of Pennsylvania are partly didactic and partly clinical. The clinical portion of the instruction is given at the State Hospital for the Insane, Norristown, Pa.; at the Pennsylvania Training School for Feeble-Minded Children, Elwyn, Pa., and in the Wards for Diseases of the Nervous System of the Philadelphia Hospital.

†Journal of Mental Science, January, 1884.

‡Burton on Melancholy, quoted in Bucknill & Tuke's Psychological Medicine.

stress upon generalities. Hence it is that so much is made of definitions of insanity in courts of law.

A carefully prepared definition of insanity might be made to do genuine service in legal cases if the object in calling for it was really to get at the truth, and not to confound a witness if possible by a quibble about words and phrases.

It is advisable to have ready for use a definition that conveys an easily-grasped meaning, and one in terms that can be understood by a layman. Do not be too anxious to invent a definition, but rather, if you find one that seems to answer, appropriate it, with proper acknowledgments, of course. Whether the definition is your own or somebody else's, you may be sure it will have imperfections and shortcomings.

One calls insanity "a fever of the mind;" another, "a lesion in the association of ideas;" a third, "a loss of the faculty of volition."

Seguin* has defined insanity as "a disordered manifestation of cerebral activity." Cruse,† in a definition applauded by Hammond, speaks of it as "a psychic manifestation of brain disease."

Combe's definition, which was used with slight modification by several experts in the Guiteau trial, is as follows: "A prolonged departure, and without an adequate external cause, from the state of feeling and modes of thinking usual to the individual who is in health; also, a morbid action in one, in several, or in the whole of the cerebral organs, and, as its necessary consequence, functional derangement in one, in several, or in the whole of the mental faculties which these organs subserve."

Dr. John P. Gray's‡ definition, given during the Guiteau trial, was that "insanity is a disease of the brain in which there is an association of mental disturbance, a change in the individual, a departure from himself, from his own ordinary standard of mental action, a change in his way of feeling, and acting, and thinking."

Dr. J. G. Kiernan‖ says, "Insanity is a disease of the brain which perverts the mental relation of a patient to his surroundings, or to what from his birth, education, or circumstances should be such relations."

Spitzka's definition,§ scientific and striking, but too ponderous for ordinary use, is as follows:

"Insanity is either the inability of the individual to correctly register impressions and experiences in sufficient number to serve as rational guides to rational behavior, in consonance with the individual's age, time, and circumstance, or, such impressions and experiences being correctly accumulated in sufficient number, a failure to coordinate them, and thereon form logical conclusions; or any other gross mental incongruity with the individual's surroundings in the shape of subjective manifestations of cerebral disease or defect, excluding the phenomena of sleep, trance, somnambulism, the ordinary manifestations of neuroses, such as epilepsy and hysteria, of febrile delirium, coma, acute intoxication, and ordinary and immediate results of nervous shock and injury."

Dr. Hammond* defines insanity as "a manifestation of disease of the brain, characterized by a general or partial derangement of one or more faculties of the mind, and in which, while consciousness is not abolished, mental freedom is weakened, perverted, or destroyed."

These are a few out of a large collection of definitions in my possession. None of this collection are entirely satisfactory, although many are ingenious and some very good.

I would define insanity as a disease or condition of the brain, in which, without loss of consciousness, the integrity of the mind is impaired or destroyed.

For legal purposes in homicide cases, a good definition could be made by adding to the above that insanity is a disease so affecting the mind as to prevent the individual either from knowing the nature of the act done by him, from knowing that it is forbidden by law, from knowing that it is morally wrong, or from controlling his own conduct.

These criteria of responsibility are from a bill drafted by Sir J. Fitzjames Stephens, and introduced into the House of Commons in 1874.

Owing to the imperfect state of the science of psychiatry, a satisfactory classification of the subject of insanity is impossible. Almost every author attempts a new method of classification, or engrafts upon an old plan some new ideas. Various principles are at the bases of these attempts.

I will not attempt a new classification, but will simply consider successively those forms of insanity which are recognized by our best recent authorities—Krafft-Ebing, Spitzka, Hammond, Clouston, and others. Without adopting any special plan of arrangement, psychological, symptomatological, etiological, etc., I shall simply give a working list of insanities met with in practice, as follows:"

1. Mania.
2. Melancholia.
3. Monomania.
4. Circular insanity.
5. Periodical insanity.
6. Katatonia.
7. Stuporous insanity.
8. Confusional insanity.
9. Hebephrenia.
10. Senile dementia.
11. Primary dementia.
12. Secondary dementia.
13. Paretic dementia.
14. Insanity from coarse brain disease.
15. Syphilitic insanity.
16. Epileptic insanity.
17. Hysterical insanity.
18. Alcoholic insanity.
19. Puerperal insanity.
20. Idiocy and imbecility.
21. Cretinism.

Under these heads are included forms of insanity which have prominent and distinctive psychical features. They are forms, each of which includes a considerable number of cases, and each

* The Hospital Gazette, July 18, 1878.

† Journal of Psychological Medicine, April, 1872.

‡ The American Journal of Insanity, January, 1882.

‖ Gaillard's Medical Journal, November, 1880.

§ Op. cit.

† Op. cit.

of which has been well studied and carefully differentiated. In a journey through a large asylum they could be picked out and separated into groups with but little difficulty. The list constitutes a practical summary of the most typical forms of mental disorder.

I have given only the general forms. Some of these, as mania, melancholia, monomania, epileptic insanity, alcoholic insanity, etc., have well-marked subdivisions, which will be considered when I come to speak in detail of each kind of insanity.

Some of the terms used are etiological—thus "syphilitic," "epileptic," "hysterical," "alcoholic," and "puerperal" insanities are enumerated. These varieties, however, have—or with our present knowledge appear to have—special psychical and other manifestations, which justify their erection into great groups.

By fully applying the etiological and diathetic method, the varieties of insanity might be almost indefinitely extended. The following is a long, but not complete, list of the constitutional and complicating insanities, which have been given a local habitation and a name in text-books and classifications, and will be briefly considered during the course:

1. Traumatic Insanity.
2. Pellagrous Insanity.
3. Lactational Insanity.
4. Insanity of Pregnancy.
5. Masturbational Insanity.
6. Post-Connubial Insanity.
7. Climacteric Insanity.
8. Post-Febrile Insanity.
9. Phthisical Insanity.
10. Gouty Insanity.
11. Rheumatic Insanity.
12. Choreic Insanity.
13. Insanity of Bright's Disease.
14. Diabetic Insanity.
15. The Insanity of Oxaluria and Phosphaturia.
16. Insanity of Heart Disease.
17. Insanity of Addison's Disease.
18. Insanity of Exophthalmic Goitre.
19. Insanity of Myxœdema.
20. Insanity from Lead Poisoning.
21. Insanity from Special Drugs—Opium, Absinthe, etc.
22. Delirium of Young Children.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(*Concluded from page* 142.)

In his paper before the International Congress of London (vol. iii., 640), Dr. Raynor supported the following conclusions:

1. Protracted gouty toxæmia, when not very intense, usually results in sensory hallucinations or melancholia.

2. Sudden and intense toxæmia results in mania or epilepsy.

3. Intense and protracted toxæmia usually results in general paralysis.

4 If there be a tendency to vascular degeneration from plumbism, alcoholism, etc., varying degrees of dementia are produced.

In the discussion which followed the reading of Dr. Raynor's paper, Drs. Savage and Crichton Browne, of London, both expressed the belief that gout does cause insanity, the latter, however, qualifying by the statement—only where there is hereditary predisposition to insanity.

Further proof of the connection between gout and insanity may be found in the Paris Thesis of M. Belliard (1882, No. 269), in which are detailed various cases.

The facts that in Mrs. L. the attack was at the time when an explosion of gout was to be expected, that in all her previous attacks mental depression was a distinct feature, that her urine was loaded with lithates, although she was taking very little food, and that there was widespread exquisite tenderness and soreness to movement with febrile reaction, appear to estabish a gouty etiology. The contraction of the lumen of the basilar arteries was seemingly sufficient to check the freedom of blood supply to the brain. Brain anæmia certainly existed, as was proven by the autopsy, and no doubt it aided in causing mental weakness.

It is certainly worthy of remark as confirmatory of the generalizations made by Dr. Raynor that the type of mental disturbance exactly corresponded with his conclusions. There was a pronounced tendency to vascular degenerations, and the mental disturbance partook of the nature of dementia.

Passing from the discussion of the etiology of the case, we note the rapid formation of a recto-vaginal circular ulcer as most extraordinary; its occurrence was entirely spontaneous. It seems to resemble in its nervous pathology the rapid eschars which sometimes form upon the buttock and extremities in severe myelitis, or perhaps even more closely the so-called perforating ulcer of the foot.

The temperature sheet of this patient was remarkable owing to the differences between the two axillæ: although, as the autopsy showed, there was no focal brain lesion to account for such difference.

Irregularities of local temperature are well known to occur in local diseases of the brain, and the temperature in the two axillæ in the present case was first tested for diagnostic purposes. The result shows that we may have such irregularities of temperature when there is no local lesion. In a case now under my care at the Philadelphia Hospital believed to be suffering from an acute myelitis, the temperature for many days varied in the two axillæ from 0.2° F. to 1.5° F. To my mind it is evident that we need careful bilateral studies of temperatures in various diseases.

The point to which I want to direct special attention, however, is that the urine was examined various times by Dr. Tomlinson without his finding any evidence of contracted kidney, although such lesion existed. My first glance at the patient made me think that she had chronic Bright's disease, but a very careful examination of the chemical reactions, the specific gravity, and the microscopic deposits of the urine, so entirely failed to justify any suspicion that I was entirely misled in this feature of the case. I should here state

that my own examinations of the renal secretion were so entirely in accord with the statement of Dr. Tomlinson, that they were not, as they ought to have been, repeated upon various specimens of the urine. As already stated, the aspect of Mrs. L. suggested the existence of chronically contracted kidney, but there was no increased arterial tension, the heart's action whilst she was under my care being uniformly feeble. It is many years since I ceased putting confidence in the absence of albumen as being of much value in disproving the existence of contracted kidney, but I have hitherto believed that reliance could be placed upon the specific gravity of the urine. The importance of examining the specific gravity of the urine cannot be over-estimated; and the import of a persistent specific gravity of 1010 or under can scarcely be mistaken; but in addition to the case just detailed, the following is of great interest as indicating that normal urine may accompany a fatally diseased kidney.

Mrs. ——. aged fifty-eight, the mother of two healthy children, consulted me in the month of April, 1883, on account of certain spells which afflicted her. The history she and her daughter gave was in brief as follows: The attacks first began in 1876, about the time she ceased menstruating, and had continued ever since; they always came on when the stomach was empty and were sure to happen if at any time during the day she was more than three hours without food, also if she does not get breakfast upon rising, she is sure to have a seizure. Excessive fatigue increases the tendency to attacks. The spell commences with extreme pallor of face and dark rings under her eyes; if walking, her gait becomes very slow; if talking, her speech slackens and then ceases; she looks around in a dazed, bewildered manner, but does not fall, and is not convulsed at all; she does not become completely unconscious, but does not know where she is or what is going on about her; if a mouthful or two of food be forced down her, she arouses immediately, but has no memory of what has occurred during the spell. A careful examination of Mrs. —— resulted in complete negations so far as organic disease was concerned. The urine was normal; there was no failure of mental power, choked disk, palsy, headache, or other local symptom discoverable, and I finally settled down to the diagnosis of gastric vertigo. Under appropriate treatment the patient improved, and I saw her at my office for the last time June 4, 1883.

In April, 1884, I was hastily summoned to her bedside and found her comatose, with a history of distinct convulsions which were said to have been diagnosed as hysterical by a neighboring practitioner, who, I was also told, after examination of the urine, had stated positively there was no disease of the kidneys. On post-mortem examination, the brain was found normal, but the kidneys presented the gross appearances of advanced contracted kidney; and careful microscopical examination by Dr. G. A. Piersoll proved that the condition of the organ was as it appeared.

A second case bearing upon the matter in hand is that of—

Mrs. I. W. T., a large, stout woman who came my office early last March on account of failing eyesight. Her appearance and description of her symptoms led me to think that she had albuminuric retinitis, but without any examination I sent her to Dr. Harlan, who reported that she had unmistakable albuminuric retinitis, and that no local treatment would be of service.

Her urine had, the day of her return to me, a specific gravity of 1020, and with the nitric acid gravity test yielded no cloud, or one so faint that I could not be sure that it existed, and noted, "believed to have a trace of albumen." According to her estimate, she was passing two and one-quarter pints a day.

April 3d. She passed three and a half pints, having a specific gravity of 1010, and totally free from albumen.

21st. Urine three pints, specific gravity 1015; no albumen.

The symptom of increased arterial pressure and cardiac hypertrophy, upon the diagnostic value of which stress has been laid, afforded in the group of cases here narrated no aid. The patients were all large, stout, middle-aged, married women, with full busts, making the recognition of a slight degree of hypertrophy exceedingly difficult, and the circulation in the two more serious cases was certainly enfeebled.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Some Cases of Disturbances of the Normal Vaso-Motor Tonus,

Was the title of a paper read by Dr. Edward T. Bruen, as follows:

My object in this paper is to relate some examples of general anasarca due to vaso-motor lesion, and also some instances of acute pulmonary congestion and œdema due to the same cause. The cases given in detail have been selected because in each instance an autopsy was made.

In December, 1879, I reported before the Philadelphia County Medical Society some cases of general anasarca in subjects of malarial poisoning without lesion of of the heart, kidneys, liver, or blood. The absence of anæmia or special corpuscular changes in the blood, was established by the use of the hæmacytometer. The dropsy was attributed to depression of the vaso-motor tonus. The line of argument on which the diagnosis was established was by exclusion of all other causes of dropsy, and by an analysis of the experimental evidence bearing upon this topic.

Quoting from that paper: Experiments bearing on this subject were made in 1680 by Lower, who tied the venæ cavæ and found that œdema followed in the lower extremities, which he ascribed to the diminished absorption of intercellular fluid owing to venous congestion. Ranvier has proved that œdema depends not only upon diminished absorption, but also upon increased exudation from the vessels. To prove this he first tied the venæ cavæ in the abdomen of the dog, and found that œdema did not appear, for although there was undoubtedly repletion of the arterial system, yet the lymphatics were able to absorb the exudation without any assistance from the veins, and therefore no accumulation of fluid took place.

But if the sciatic nerve was cut upon on one side, intense œdema occurred in the correspond-

ing limb. Venous congestion was undoubtedly present in both legs for the venæ cavæ had been ligated, but in one the nervous influence proceeding to the arteries through the sciatic nerve, kept them contracted, and prevented the exudation of more fluid than the lymphatics could absorb.

In the leg in which the nerve had been paralyzed by division, the vessels dilated, the limb became rosy and warm, and so much fluid was poured out that the lymphatics alone could not absorb it without the aid of the veins.

Ranvier further proved that this was due to the paralysis, not of motor, but of vaso-motor nerve-fibres which are contained in the sciatic. Because, after cutting in different animals motor and vaso-motor nerves in the lumbar region before they had united to form the sciatic nerve trunk, when the motor fibres were divided as they issue from the lumbar vertebræ before uniting with the sympathetic fibres, complete paralysis of the legs was produced, and no œdema occurred; but if, on the other hand, he divided the sympathetic fibres passing to the sacral plexus there was no motor paralysis, and œdema occurred.

We can therefore conclude that paralysis of the vaso-motor nerve is sometimes an important factor in the production of anasarca. But the production of anasarca in the instances already mentioned (viz., those in which there is no mechanical explanation or lesion of the blood tissue) is probably also due in part to suspension of the functions of the skin. The function of the skin is not alone dependent on the blood-supply of the skin, but is also under the control of the innervation of the nerves supplying the cutaneous glands.

Dr. Foster states that the skin of dogs and cats can be made to act, and sweating produced by stimulation of the sciatic nerve after clamping the aorta, and the same result he has obtained in the leg of the frog by stimulating the sciatic nerve after amputating the leg. The existence of secretory nerves and their special influence over the secretions of the skin, has also been affirmatively investigated by Dr. Isaac Ott, and G. B. Wood Field, in a series of original experiments. Their article is entitled "Sweat Centres, the Effect of Muscarin and Atropin on them."

To sum up: in the anasarca following malaria, under the conditions already stated, we can as readily understand the action of the malarial poison upon the vaso-motor and spinal centres, as we can trace the impaired nutrition of those suffering from repeated malarial seizures, to a condition of the nervous system universally credited to the unfavorable action of the malarial poison upon it.

Since 1879 a number of cases of general anasarca have come under my notice, which I have ascribed to sudden depression of vaso-motor tonus (usually through malarial influences), but I have not had an opportunity of making an autopsy on any one of them. The following case of acute general anasarca, however, occurred under my observation in Dr. R. G. Curtin's ward in the Philadelphia Hospital, and through his courtesy I have privilege of reporting it:

Case 1. A well-nourished man, æt. 38, was admitted to the hospital October 15. Prior to October 8, he had been a healthy man, a driver on the street-car by avocation. He had always been used to drinking spirits freely while on duty, to counteract the effects of exposure; but he had not been often drunk. However, after an unusual indulgence, he was seized suddenly with œdema of the genitals, which, within twenty-four hours, was followed by anasarca affecting the cellular tissues of the abdomen and loins, and finally the limbs became swollen. Associated with the œdema was rapid action of the heart with shortness of breath. On the day of his examination in the hospital, the tissues already named were very much swollen, and there was the most profound functional disturbance of the circulation. The heart's action was over 220, as counted by both Dr. Curtin and myself. Withal, the facial appearance of the patient was that of robust health, and the cheeks bore a ruddy hue. The systole of the ventricle seemed normal in force, producing a distinct first sound, and a good impulse could be felt. The physical examination of the lungs revealed only the signs of moderate passive congestion; the liver was normal, and the condition of the urine entirely physiological, as shown by repeated tests. After treatment for two weeks a marked improvement was secured, the pulse fell to 120, the anasarca nearly disappeared, and entire convalescence was expected. One morning on rising from the bed the patient suddenly gasped for breath, and fell over on the bed, dead from asystole of the heart. A careful post-mortem revealed slight hypertrophy with dilatation of the heart, which weighed fourteen ounces. There was also slight atheroma of the aorta. The lungs were somewhat congested; brain, on macroscopic examination, normal; and the kidneys natural. The liver was slightly cirrhotic, weighing sixty-one ounces. The above insignificant modifications in the tissues were credited to chronic effects of alcohol, and the case appears to me to illustrate vaso-motor dropsy, and to sustain the view that various influences as well as malarial are capable of producing vaso-motor paresis with anasarca.

When we review the history of cases of sudden pulmonary congestion and œdema due to or associated with vaso-motor weakness, we find the best illustration in acute œdema of the lungs in subjects of chronic alcoholism. In these cases œdema may develop in a few hours, attributable to the effect of alcohol on the vaso-motor system.

Alcoholic pulmonary œdema differs from the secondary hydræmic œdema of Bright's disease, scorbutus, purpura, anæmia, etc.; because alcoholic subjects are not always anæmic. Alcoholic pulmonary œdema may exist independently of organic heart disease, or inflammatory processes in the lungs such as pneumonia, capillary bronchitis, miliary tuberculosis, etc. The cases I shall presently report represent pulmonary congestion and œdema from vaso-motor paresis analogous to cases of alcoholic pulmonary œdema, and similar to those cases which occur from deficient vascular tonus from pressure on the vagus or the pulmonary plexus.

Similar forms of œdema occur in acute general diseases, such as typhoid, typhus, and scarlet fevers associated with feeble heart action. Pulmonary œdema from lowered vaso-motor tonus

occurs in the aged or feeble, and is associated with catarrhal swelling of the bronchial mucous membrane.

The following cases of pulmonary congestion with œdema, however, occurred suddenly and in young, previously healthy, persons, who were not directly subject to any of the above predisposing causes.

Case 2. Emma E., æt. 38. Admitted to the Philadelphia Hospital October 9. Had been in good health up to within two or three days previous to admission. On examination, she complained of dyspnœa, and fine crepitant rales were heard all over the lower lobe of the left lung. On the 11th, the same variety of rales were heard over the lower right lobe, and had disappeared on the left side; no dullness over either side of the chest, and respiratory murmur slightly harsh, but normal. No evidence of disease of heart, kidneys, or blood, nor of inflammatory disease of the lungs. Temperature 98° F. These physical signs continued until the 14th, unchanged except that the rales grew more moist, and affected both lower lobes. On the night of the 14th, she was suddenly seized with intense dyspnœa and very quickly became livid and unconscious. Physical examination revealed intense pulmonary congestion and œdema.

The treatment instituted was hypodermic injections of atropia, at first $\frac{1}{100}$ of a gr. and then $\frac{1}{50}$ of a gr., three injections being given; also two injections of $\frac{1}{50}$ gr. strychnia inside of six hours; together with these measures cardiac stimulants, digitalis, alcohol, and ammonia were freely used, with dry and wet cupping. These measures produced great relief, and in the course of twelve hours the patient was easier and conscious. The treatment by atropia and strychnia hypodermically injected, was continued by Dr. Jenkins t. d. during the 15th, and the cardiac stimulation several days. The congestion almost entirely disappeared, and we cherished the hope of an entire convalescence, when on the 19th she had a chill, the temperature rose to 103°, and within two days pneumonic consolidation of the right upper lobe ensued, which proved fatal. An autopsy revealed no lesions save the apex pneumonia in the second stage.

(*To be continued.*)

Editorial Department.

Periscope.

The Management of the Third Stage of Labor.

Dr. Wm. J. Smyly read this paper before the last meeting of the British Medical Association.

The subject is one of the greatest importance both as regards the mother and her child, and it cannot be doubted by any one who has seen much midwifery practice, or who has read the cases published in the medical periodicals, that, even at the present time, numbers of lives are lost through mismanagement of this stage of labor.

This subject divides itself into two parts: first, as regards the mother; and secondly, as regards the child. I shall confine myself to the former of these, namely, What is the best method of conducting the third stage of labor so as to insure the safety of the mother? And here I would state, as the great fundamental truth, the aphorism of Professor Credé, that, "the uterus itself should expel the afterbirth, and the sooner it does it, after the expulsion of the fœtus, the better. If it do not do so, it must be made to, otherwise it may be too late, and the dangers of retained placenta come into force." If this be true, and I cannot imagine any grounds for thinking that it is not so, it altogether eliminates such practices as pulling upon the cord; attempting to express the placenta from a relaxed uterus; "the imitation of the pains when absent," as recommended in one of our most popular text-books; or the introduction of the hand into the uterus, unless in cases of absolute necessity. Of all these methods, perhaps the most disastrous is that of pulling on the cord, resulting, as it has done, in its avulsion, entire or partial, with retention of the placenta and membranes; irregular and inefficient contraction; and partial or complete inversion of the uterus, and violent hemorrhage. All these dangers have been so frequently dwelt upon, that one might have hoped that by this time the practice would have been entirely abandoned; but this does not appear to be the case, and amongst a series of communications on the subject of hour-glass contraction of the uterus, which appeared this year in the *Brit. Med. Jour.*, is one by a gentleman who not only admits having pulled upon the cord, but adds that "any one else would have done the same." Neither does it seem to have occurred to him that the anomaly which he describes was the result of his own mismanagement. Such practice destroys the natural mechanism of placental delivery, and is almost invariably followed by considerable loss of blood.

If, then, the uterus is the proper agent, not only for the completion of the birth, but also for the extrusion of the after-birth, why not regard the third stage as a physiological process, and, just as in the other two, observe, unless in case of absolute necessity, a purely expectant attitude? This inactive method has been adopted in some of the Continental hospitals, and has been advocated by Drs. Ahlfeld, Teuffel, and Kabierske, the last of whom has set forth the following propositions:

"1. The natural powers of normal labor are sufficient for the perfect separation of the afterbirth, and the completion of the placental stage, and do so much better and more completely without artificial aid than with it.

"2. The expectant treatment of the placental stage is free from danger."

The first of these propositions is true, and is borne out by statistics. The method adopted in the Strasbourg clinic was, in normal cases, expectant; the state of the uterine contraction being from time to time observed, as well as the amount of the discharge; and the bladder and rectum were carefully attended to. Thus hours were often allowed to pass, without any attempt to remove the placenta, even though lying in the vagina. Out of 100 cases treated thus, the placenta was expelled in 69 within three hours. This is more rapid than the observations of others would have led us to expect, and was probably, in some measure, due to the action of the bladder and rectum; for it was usually during an effort to relieve either of these viscera that the placenta was expelled. The old wives' plan of giving the woman a pinch of snuff would be equally efficacious and more agreeable.

By this method it is alleged—and this is the strongest point in its favor—that the membranes, and especially the decidua, are much more completely separated than a more active one. Instead of being expelled as a thin, and in many places an imperfect, membrane, the decidua was found to be by far the thickest portion of the coverings of the ovum. Thus the expectant plan appears to be followed by a better separation of the decidua; but, on the other hand, it is liable to be attended by violent hemorrhages, which not only immediately imperil the patient's life, but subsequently tend to relaxation of the uterus, permitting the formation of clots within its cavity, which by decomposition might occasion putrid infection. Even Kabierske himself admits that the average amount of blood lost in his cases was greater than that recorded by others; and, though he makes light of this circumstance, there is good reason to believe that it is often sufficient to occasion alarm. It also permits irregular contraction of the uterus, and incarceration of the placenta, necessitating more frequent introduction of the hand, and thus increasing the liability to septic inoculation. Besides, the long delay is not only irksome to all concerned, but is calculated to excite and alarm the patient and her friends. The second proposition, "that the expectant treatment is free from danger," must therefore be rejected as not borne out by facts.

The relative results of the expectant and a more active method of treating the placental stage are clearly shown by the following statistics by Dr. Weir, of Copenhagen:

Cases treated.	*Expectantly.*	*Expression.*
Post-partum hemorrhage, . .	5.78 per ct.	2.3 per ct.
Manual removal of placenta,	1.33 "	0.64 "
Retention of membranes . .	1.78 "	2.3 "
Secondary hemorrhage . . .	0.77 "	0.32 "

From these statistics, it appears that the only advantage of the expectant method is that retention of the membranes is less frequent; but, in spite of this, and contrary to what might have been expected, secondary hemorrhage is more so.

The results of the expectant method should teach us to keep a constant control over the uterus, by holding it with the hand, and never allowing it to relax. This is the method which has been practiced in the Dublin Lying-in Hospital for upwards of a century, and is similar to that introduced into Germany by Prof. Credé. A good deal of controversy has arisen as to whether these two methods, namely, the Dublin method and Credé's, are the same or different. I shall, therefore, describe them separately, and afterwards compare them with each other.

The Dublin method has been followed in the Rotunda Hospital certainly since the mastership of Dr. Clarke in 1789. It was described by Dr. Dease, of Dublin, in 1783, and by Drs. Hardy and McClintock, in 1848. I shall quote their description (*Practical Observations on Midwifery*, p. 221).

"Having placed the hand on the fundus uteri, friction and slight pressure are to be made, and, if the amount of contraction thereby induced be not sufficient to repress the hemorrhage, it will be necessary to expel the placenta from the cavity of the uterus. In doing this, the organ must be grasped firmly, and pressure exerted upon it in the axis of the brim of the pelvis. If the uterus have fallen to the left side, as not uncommonly happens, it must be raised into its natural position, before commencing to exert compression upon it. It will also tend much to the success of the manipulation, if it be performed during the presence of uterine action. Indeed, we have sometimes been surprised at the ease with which the placenta was pressed off during a contraction of the uterus, while previously it had withstood our best directed efforts. These measures we have seldom found to fail in getting away the placenta, unless it be morbidly adherent."

In 1853 Professor Credé first published an account of his method. Quite unacquainted with the Dublin practice, he was led to the discovery in the following way. Being frequently called to cases of retained placenta attended with hemorrhage, he found that examining the uterus externally was often sufficient to excite so violent a contraction as to expel the placenta even outside the vulva.

So gratified was he by this unexpectedly favorable result, that he adopted a similar treatment in every case, with marked success. He recommends that as soon as possible after the birth of the fœtus, the hand should be placed over the region of the uterus, making, at first, gentle stroking movements, until it is felt as it commences to contract beneath the fingers; then, as the contraction reaches its acme, the organ is grasped in one or both hands, the fingers being spread out over it; thus its walls are squeezed together, and pressure is made towards the coccyx.

The chief point is, to seize the exact moment when the contraction is at its height. By this method, in a favorable case, the afterbirth can be expelled by a practiced hand, with the first or second after-pain. As a rule, however, it follows with the third or fourth, that is, in about five minutes. If it do not come, he waits for more pains, and acts in a similar manner with each; it seldom requires more than fifteen minutes. He specially cautions against impatience or violence in manipulation.

Each of these methods has some direct advantages. By following its contraction, the intestines are prevented from falling down in front of the uterus, and thus pressure can be made more directly upon it. By never allowing it to

relax, irregular contraction and hemorrhage are avoided, so far as is possible. Professor Spiegelberg lays great stress on the importance of this practice. "It is not," he says, "identical with Credé's method. Whilst in the latter the hand is placed upon the uterus after the birth of the child, and by powerful irritation excites it to contraction; I lay the chief stress, after the example of the Dublin Lying-in Hospital, upon the immediate general contraction of the uterus, whilst through this the separation of the placenta is brought about; and this, not the expression, is the chief point. Thus from the birth of the head, by following the uterus, and by mechanically exciting it, I make the contraction which necessarily accompanies the expulsion of the fœtus, both energetic and continuous.

Thus I often obtain rapid separation of the placenta, and prevent irregular contraction of the uterus. In Credé's method, irregular contraction may set in, unobserved, between the birth of the child and the commencement of the process; whilst by the above method this is impossible." The importance of this point is also illustrated by two cases published by Dr. Garrigues, in which violent, and in one case fatal hemorrhage occurred, before Credé's method could be practiced (*Amer. Jour. of Obstet.*, May, 1884).

In Credé's method, friction and pressure are more actively and systematically carried out than in the Dublin method, and so the expulsion of the placenta is hurried; but the liability to retention of the membranes is increased. The importance of this latter complication is at present, however, uncertain. The expulsion of the placenta from the vagina by pressure alone, without introducing the fingers into the vagina, is a decided improvement, and is the natural outcome of antiseptic teaching. That it was not appreciated by Irish obstetricians, more than one hundred years ago, is not to be wondered at, yet Dr. Garrigues has seized upon this one point to disparage altogether what he contemptuously designates the "so-called Dublin method." It is much more surprising that he should himself, according to his own confession, have practiced, until eight years ago, "the old way of pulling on the cord."

My own belief is that a mixed method, combining the advantages of the Dublin with those of Credé's method, is the best possible. The following are the most important points to attend to: Follow the contracting uterus, as it expels the child, and by pressure and friction make this contraction energetic and permanent. Never let it go, unless compelled to do so; and then always provide a substitute, the nurse, a friend, or even the patient herself. It is wrong to resign such an important function, simply to tie and divide the navel string. During a contraction, press the uterine walls together, and the entire organ towards the coccyx. When sudden flattening of the uterus shows that the placenta has been expelled from it, then by strong pressure downwards drive it out of the vagina. The placenta should not be shot out upon the bed or into a vessel held against the buttocks, since the membranes are thereby liable to be torn across, but it should be received in the hand at the vulva, and rotated so as to twist the membranes into a firm cord which is easily withdrawn, without, as a rule, leaving any portions behind. Should this accident, however, occur, I think it is less dangerous to leave them than to introduce the hand for their removal; but should they prove a cause of hemorrhage they must be taken away.

Finally, I quite agree with Dohrn, Runge, and others, that beneficial as is the active method when properly employed, just so injurious is it when unskilfully carried out. The hasty and violent expression of the placenta from an imperfectly contracted or relaxed uterus is a frequent cause of retention of the membranes and portions of placenta, as well as of violent hemorrhage and fever.

The Physiological Action of Coca and Cocaine.

Dr. Eber Caudwell thus writes in the *Brit. Med. Jour.*, January 3, 1885:

The following observations made on myself were undertaken at the suggestion of Dr. Murrell, with the view of ascertaining whether coca or its alkaloid possessed any toxic action. The first series was made with valoid of coca, a fluid extract, each part of which corresponds to an equal weight of the leaves of the coca plant. On December 9th, at 2 p. m., being busily engaged in seeing out-patients, I took two drachms in water, and experienced nothing but a little frontal headache. On the 9th, at 7 p. m., after a hard day's work, I took three drachms, and almost immediately fell into a deep sleep, which lasted four hours. On the 13th, I took five drachms at bedtime, slept for two hours, and then passed a restless night. On the 16th, I took a fluid ounce at bedtime, and was kept awake all night. There was a general feeling of well-being, with considerable mental excitement, and I was able to read steadily for many hours. On the 19th, I took two ounces at midnight, suffered severely for ten minutes from giddiness and unsteadiness of gait, and then experienced the same sensations as on the previous evening. There was renewed mental and physical activity, and I felt that any exertion could have been undertaken without difficulty.

My next observations were made with the hydrochlorate of cocaine, a supply of which was kindly placed at our disposal by Mr. E. Merck, of Darmstadt. Half a grain, taken by mouth at bed-time, produced drowsiness; a grain induced sleep, followed by persistent insomnia; two grains and a half gave rise to frontal headache, great mental excitement, and marked insomnia. Failing to produce any decided toxic effect, I took, at 7 p. m. on the 29th, a single dose of three grains. I had just come off a long railway journey, and had purposely abstained from food for nearly twenty-four hours. At first I felt decidedly sleepy, and there was slight vertigo; but these symptoms soon passed away, and, in the course of an hour, I felt perfectly fresh and well, and remained awake all night. At 10:30 on the following morning, I took five grains more, and then felt that a decided effect had been produced. In a few minutes I was so giddy I could hardly stand, and was quite unable to make any exertion. There was a slight supra-orbital headache, and a feeling of weight or sinking at the pit of the stomach. The pupils were widely dilated, and I could hardly see. My temperature was taken four times, and was found to vary from 96.7°

to 98.6°. The pulse, for a few minutes, rose to 94, but, as a rule, was not above 80. The urine passed at the time had a specific gravity of 1020, and was normal. In about two hours, the unpleasant sensations passed off, and I walked to the hospital, a distance of four miles, in something under fifty minutes. By one o'clock I was quite myself again, and was as fresh and vigorous as ever. The dilatation of the pupils continued for six hours. From these observations I conclude:

1. That coca and cocaine exert a double action, acting as cerebral sedatives in small doses, and as cerebral stimulants in large doses.

2. That cocaine, given internally, dilates the pupils.

3. That cocaine, unless in large doses, possesses no toxic action.

The Snow Cure.

From an illustrated paper, by W. George Beers, on "Canada as a Winter Resort," in the February *Century*, we quote the following: "It is by no means every delicate person who should make Canada his winter resort; but it is well known that our winters have cured chronic cases for which Colorado and Florida were alone supposed to be beneficial. Every winter numbers resort to Montreal, Quebec, Halifax, and Winnipeg for no other reason than that for which they once went to tropical climates. I know of patients who were regularly sent to Bermuda and the West Indies, and others to such winter climates as Nice, without more than temporary benefit, who were completely cured by the outdoor life of our Montreal and Quebec winters. Two years ago we had an exceptionally severe winter in Manitoba. Its severity and peculiarities were precisely the same in Dakota and Minnesota. I was *en route* from Brandon to Winnipeg, a distance of one hundred and eighty miles by rail, and was caught in a snow-blockade which lasted eight days, and kept us in a situation not likely again to occur. The storm was so severe that relief-trains could not leave Winnipeg, and a couple of us who had the long snow-shoes used on the prairies tramped to and from farm-houses a couple of miles distant for provisions for the passengers. The snow-plows were of no use, and in a desperate attempt to cut a way through the drifts, the engine jumped the track and came to grief. The train was pulled back from the *débris* by an engine in the rear, and the next morning we found ourselves separated from the wreck by deep drifts, some of them fifteen feet high. Night after night passed; the coal and wood ran short; two of the cars were abandoned by the passengers, and, to economize fuel, we were crowded into the two remaining cars. The sleeping accommodation improvised was very amusing. Fancy roosting two in a single seat, with your knees doubled up to your chin; or lying like sardines, four in a double seat; or propped on top of the back of the seats, which were turned up and brought together so as to form a sort of double deck. Shovelers had been working day and night, but there were too few of them; and at last the passengers went to work, and from 9 a. m. until 5 p. m. pitched the snow with might and main, and succeeded in clearing the track. In order to pass the obstacle of the wrecked engine, we raised old rails, got ties and laid a new side-track on the hard snow, and our cars were safely shoved forward. Shovelers from Winnipeg had succeeded, with the snow-plow, in reaching us, and we were soon on our way. The effect of this exposure upon the health of many of the passengers was remarkably good. One clergyman who had come out from England for some affection of the throat, was determined to do his share of the shoveling. He had very thin moccasins on his feet, and during the day, as there was a warm wind, they were wet through. He never expected to see England again, but that one day's work cured him effectually. Other persons suffering from throat and lung affections have not since been troubled. One would suppose the conditions were just to provoke illness, but the very reverse was the case."

Urethral Fever.

The *London Medical Times*, January 3, 1884, says that urethral fever formed the subject of Mr. Horsley's fourth lecture at the London University. He thought it impossible that this fever could be of other than neurotic origin; its rapid appearance, usually in four hours, and its supervention upon simple catheterization when no abrasion was believed to have occurred, rendered untenable the theory of a septic pathogenesis. Urethral fever he divided into two varieties, (1) an acute, "fulminating," occurring usually from catheterization, and (2) a subacute fever occasioned by internal urethrotomy. The fulminating variety occurred mostly in patients who were under treatment for the first time, and whose strictures were of recent formation. The rise of temperature in the second class was much slower, being preceded by a subnormal drop of 1°, due probably to shock. The maximum temperature was attained in 23 hours. This class of cases occurred among patients who had been the subject of stricture for several years, and had had more or less treatment preliminary to the urethrotomy, which was the immediate antecedent of the fever. In cases in which no pyrexia supervened upon treatment, Mr. Horsley found the stricture to have been always of very long standing, extensive treatment having previously been undergone. To explain the pathogenesis of urethral fever, he invoked the aid of the hypothetic heat centres in the spinal cord. The researches of Quincke, Naumyn, Wood, Heidenhain, and others, rendered it probable that such centres do exist, and are in all likelihood thermo-inhibitory in nature. In a urethra crippled by a recently-formed stricture, the nerves would be highly sensitive, and would readily respond to stimulation, and hence reflex heat changes would in such cases naturally be initiated, while in long-standing stricture the sensitive character of the urethra would be considerably impaired, a result also largely brought about by previous manipulation. The evidence was, in Mr. Horsley's opinion, altogether opposed to Sèdillot's septic theory, and lent itself readily to one which appealed to a neurotic origin. Thus chloroform, ether, morphia, quinine, which could not exert any influence upon septic absorption, controlled alike the rigors

and the pyrexia which, without their employment, ensued in surgical manipulation of the urethra. Drawing practical conclusions from his cases, Mr. Horsley found continuous gradual dilatation with internal urethrotomy to be the procedures most free from the risk of pyrexia. He advised that chloroform should be administered, the urethra dilated to No. 4 E., and internal urethrotomy then performed. No instrument should be left in the urethra, nor should one be passed for 96 hours after the operation. Morphia might be used an hour before the operation, and recourse had to quinine for the after treatment. The urine in these cases was somewhat lessened, but rapidly returned to its normal standard.

Cocaine in Dysmenorrhœa.

Dr. John Forrest, of Charleston, S. C., thus writes in the *Med. News*, January 10, 1885:

My patient has suffered for years from painful menstruation, accompanying a retroflexion of the uterus, complicated with adhesions. The deformity of the uterus has been rectified by treatment, but the pain during the menstrual period is still as agonizing as ever. The most acute and intolerable anguish is felt in the left inguinal region, and is accompanied by a wind colic that causes the sufferer to writhe in agony. Nausea and vomiting add to her distress, and she seems at times ready to go out of her mind with suffering.

While still hoping to effect a permanent cure of this condition by appropriate treatment, temporary relief by the administration of morphia is all that I have hitherto been able to afford her; at the same time, that drug produces such disagreeable effects, that the remedy is only not quite so bad as the disease. It excites the nervous system, banishing sleep; it adds to the nausea, increases the prostration, destroys the appetite, and fails to keep off the wind colic. But on the last occasion, instead of morphia, I used cocaine, injecting subcutaneously over the left ovary, at first three, increased afterwards to five minims of a four per cent. solution. Almost immediately after each injection the pain in the inguinal region ceased to be felt, the nausea and wind colic were relieved, and, instead of nervous excitement and wakefulness, a soothing effect inclining to sleep was experienced. Five minims of a four per cent. solution were sufficient to afford complete relief for five or six hours, and comparative immunity for a much longer period.

While, however, the drug acted thus admirably, both locally and generally, it had no effect, apparently, on the bearing-down pains, and pain in the back, but only upon the local pain in the neighborhood of the spot where it was injected. It was also noticed that, while it relieved the nausea and vomiting of a reflex origin, it sometimes caused slight nausea itself, but this was only temporary. No other unpleasant effect was experienced, if we except a slightly bitter taste imparted to the tongue.

If cocaine can thus be made to supersede morphia in such cases, it will certainly prove an inestimable boon to many an unfortunate sufferer. And if it is able to relieve that excruciating intestinal pain usually called wind colic, which in so many cases is sure to follow the slightest surgical interference with the uterus, this of itself will be no mean trophy added to its many wonderful triumphs over human suffering.

German Views on Cocaine.

Considerable attention is given in the German medical press to the successes of cocaine as a local anæsthetic. Attention is drawn in the *Berliner Klinische Wochenschrift* to a claim to priority in the discovery of its value. Professor Rossbach, of Jena, writes that Dr. von Anrep, of St. Petersburgh, was the first who observed its local anæsthetic effect, and that Dr. von Anrep published an account of his observations, which he made in 1879 in Professor Rossbach's pharmacological laboratory at Würzburg, in Pfluger's *Archiv*, 1880, vol. xxi., page 38 *et seq.* He here points out its effect on the nerves of the skin and tongue, and on Page 70 recommends its trial as a "local anæsthetic" on human beings. In Professor Zuelzer's polyclinic at Berlin, cocaine has been used, with very susceptible people, on the urethra of men and women, from two to three cubic centimetres of a 2 per cent. solution of cocaine being syringed into the urethra, and retained there from three to four minutes. A diminution of susceptibility was always obtained, and sometimes perfect anæsthesia of the urethra, so that the catheter could easily be used. Professor Kahler, of Prague, reports a case of an unmarried woman, aged 38, who had suffered for years from hysteria, and for three weeks had been unable to take any form of nourishment through the mouth, owing to inappeasable vomiting. He painted the pharynx and base of the tongue with a 10 per cent. solution of cocaine, after which she was immediately able to take liquid, and soon afterwards solid food. Some valuable results are also published from Professor Jurasz's clinic for diseases of the larynx, throat, and nose, at Heidelberg; several experiments were made at Professor Jurasz's instigation by one of his pupils, on six medical men connected with the clinic, all of which, including a difficult operation, performed successfully and without pain to the patient by Professor Jurasz, justify the prophecy that this new material will be extensively and successfully used in the future.

A Painless Escharotic.

Drs. N. A. Randolph and Samuel G. Dixon thus write in the *Medical News*, January 24, 1885:

In the rapidly-growing literature of cocaine, it is not impossible that the application which we here briefly describe, has already been employed; but, if so, it has escaped our scrutiny of the later developments regarding this drug.

When a saturated solution of cocaine hydrochlorate in strong nitric acid is applied to the uninjured skin, the ultimate result is precisely that which would occur upon the similar application of pure nitric acid, but the time required for the formation of a deep eschar is considerably longer in the former than in the latter case.

We have experimented with the mixture just mentioned upon several individuals, ourselves included, and can safely say that the sensations

attending its application cannot be accurately described as painful. There is, however, a slight pricking sensation soon after the mixture is first dropped upon the skin.

Upon one person a control-experiment was instituted in the following manner: Upon his right arm were placed four drops of strong nitric acid, while upon the same point on his left arm was similarly disposed the same quantity of the mixture of nitric acid and cocaine hydrochlorate. The pure acid caused great pain, and was speedily removed; the mixture, which was applied later, caused a sensation described as "tickling, with slight pricking," which soon passed away.

In two cases the burned points were covered with absorbent cotton wet with a two per cent. solution of cocaine salicylate—a salt which we have not yet seen described, but which, in addition to the peculiar properties of its contained alkaloid, appears to be somewhat antiseptic. There has been no discomfort after the formation of the eschar. Prof. Harrison Allen, to whom we presented a portion of our solution of the salt last mentioned, kindly reports that he has applied it several times in his practice as a substitute for other salts of cocaine, with good results.

Rhigolene as an Anæsthetic.

In the *Canadian Practitioner*, Dr. G. S. Ryerson asks for more attention to this long-known local anæsthetic. He says:

"It is not a definite compound, but is the most volatile liquid known. When used in the form of a spray it is capable of freezing the tissues in about one minute, and producing a greater degree of cold than all other substances, except cymogene, whose boiling point is 32° F. It freezes more rapidly and deeply than ether; but as this effect is somewhat evanescent, the spraying must be frequently repeated during an operation, and may be kept up as long as required. Under a rhigolene spray both superficial and deep tissues can be freely divided, when properly exposed, without hemorrhage or pain; but owing to the rapid disappearance of the congelation, operations must be promptly carried out.

"I think that this drug may prove of considerable use in general surgery, inasmuch as the muriate of cocaine has not proved very useful when applied to the unbroken skin, and when injected hypodermically has caused unpleasant constitutional symptoms. In a previous number of the *Journal* I advised caution in its (cocaine) internal use."

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Several interesting cases of malformation of the female sexual organs resulting from arrest of development are described in a reprint by Dr. B. B. Browne, of Baltimore.

——A tabular arrangement, showing the character of the urine in disease, compiled by Dr. Louis Lewis, has been printed by the *Medical World*, of this city. It is a convenient and accurate presentation of the subject.

——Messrs. Parke, Davis, & Co., of Detroit, have published a suggestive pamphlet, entitled "Open Pharmacy and Scientific Substitutes for Proprietary Preparations, the Remedy for the Great Patent Medicine Evil." Their facts as well as their arguments and suggestions should receive the attention of the profession, as the question they broach is one of the most vital both to physicians and the public.

——The 55th Annual Report of the Philadelphia Lying-in Charity and Nurse School reminds us that it was this excellent institution which originated and organized the first nurse school ever in existence, and that too in days when to assume to teach nurses was almost a cause of obloquy and reproach.

——The 32d Annual Report of the Children's Aid Society, Philadelphia, shows that organization to be engaged actively in its beneficent labors.

——In an address on "The Revival of Ovariotomy," Sir Spencer Wells gives an admirable sketch of the history of the operation, and the gradual extension of its domain (London, J. & A. Churchill).

——Dr. A. W. Calhoun, of Atlanta, in a reprint on school hygiene, protests against the unwise cramming of children now so prevalent. He justly observes:

"Fewer hours of study and more rational methods of teaching, less cramming of mere memory and more healthy development of the intellect, will make brighter, healthier, and more intelligent students, who will develop into stronger, happier, more energetic men and women."

——An intelligent and honest discussion of the merits of the climate of New Mexico as a health resort is offered in an article by Dr. W. Thornton Parker, of Atlantic City, N. J. We commend it to all who think of going there.

——"Sugar of lead" forms the basis of so many lotions in eye surgery that the absolute condemnation of it by Dr. David de Beck, of Cincinnati, in a recent reprint, is worth attentive consideration.

——The Board of Education of Cleveland, Ohio, has printed, for general distribution, a series of "Brief Instructions as to the First Symptoms of Transmissible Diseases," by Dr. L. B. Tuckerman. The pamphlet is well and clearly written, and cannot fail to be of good service as a guide to teachers and superintendents of schools.

BOOK NOTICES.

Transactions of the Medical Association of Georgia. 35th annual session. Atlanta, 1884. 1 vol., 8vo., cloth, pp. 477.

In this handsome volume we have presented the proceedings of the meeting, the address of the President, Dr. A. W. Calhoun, the roll of members, necrological notices, and a large number of original papers and special reports.

One of the most noteworthy of the papers is by Dr. Battey, who details thirty consecutive cases of ovariotomy under antiseptic precautions, *all successful*. Dr. Gaston's explanation of the pathology and therapeutics of diseases of the nerve-centres is another valuable contribution. Dr. Eugene Foster discusses in a masterly manner the sociological bearings of syphilis. Dr. K. P. Moore enters a plea for the more general use of anæsthesia in natural labor, which we hope will be listened to favorably. In therapeutics, Dr. Lallerstedt writes of the uses of gelsemium, Dr. Hobbs of jequirity, Dr. Nunn of diet in consumption, Dr. Parks describes a new mammary bandage, and Dr. O'Daniel advocates the plaster-of-Paris dressing in fractures. Dr. McHatton maintains that leprosy is not contagious, and is only propagated by heredity. And there are other excellent papers which we have not space to specify.

Diseases of the Urinary and Male Sexual Organs. By William T. Belfield, M. D.

The Therapeutics of the Respiratory Passages. By Prosser James, M. D.

A Manual of the Medical Botany of North America. By Laurence Johnson, A M., M. D.

The above-mentioned three works belong to the issues of Wood's "Library of Standard Medical Authors" for 1884, and are published by the well-known firm of William Wood & Co., New York city.

We do not find in Dr. Belfield's work any new contributions to existing knowledge of the subject of which he treats. It appears to be little more than another presentation of familiar facts.

Dr. James has collected a great many observations and suggestions on his topic, and among them will be found a number which are worth remembering—and a number which are not worth it. The best part of his volume is that which discusses the hygienic measures, such as food, water, exercise, and rest, to which we look in the chronic forms of pulmonary trouble.

The Manual of Medical Botany of Dr. Johnson will satisfy in its botanical aspect, but we suspect will disappoint in its medical side. The "medical properties and uses" of the plants are passed over rather hurriedly, and not unfrequently either questionable authority given for the statements, or vague suggestions offered, which are not sufficiently precise to serve as guides. The volume has a number of wood-cuts, and some neat chromolithographs.

Official Register of Physicians and Midwives in Illinois. 1 vol., 8vo. cloth, pp. 324. Springfield, 1884.

This carefully prepared volume is a model for similar publications, and we heartily wish every state and territory in the Union would follow the example of Illinois in publishing such a record.

The Diagnosis and Treatment of Chronic Nasal Catarrh. By George M. Lefferts, A. M., M. D. 12mo., pp. 49. St. Louis, Lambert & Co.

The contents of this work are made up of three clinical lectures delivered at the College of Physicians and Surgeons, New York city. They are freely illustrated, showing the character of the lesions and the instruments used. For those who wish to post themselves on the character and management of this common complaint, the little volume will be found a desirable one.

Conspectus of the Medical Colleges of America. Revised to December, 1884. Compiled by the Illinois State Board of Health. 8vo., pp. 96. Springfield, 1884.

The object of this publication is to set forth the requirements which the various medical colleges demand of their graduates, and thus to offer a means of estimating their relative standing. The facts and statistics it presents give a better idea of what medical education is in the United States than all the addresses on the subject that have ever been issued. It is a volume which we commend to the consideration of all interested in the "elevation of the standard of the profession."

Insanity and Allied Neuroses; Practical and Clinical. By George H. Savage, M. D., etc. 12mo., cloth, pp. 544. Philadelphia, H. C. Lea's Son & Co.

This convenient, well-written, and well-printed volume is one of the series of manuals which we have already had occasion to commend. That it is written entirely from the English standpoint is somewhat against its value for American readers in what concerns the legal relations of the insane; but, of course, the strictly medical portions are as appropriate here as there. The now acknowledged fact that insanity is steadily on the increase in most civilized countries attached a growing importance to its study.

THE

Medical and Surgical Reporter,

A WEEKLY JOURNAL,

ISSUED EVERY SATURDAY.

D. G. BRINTON, M. D.,
JOSEPH F. EDWARDS, M. D., } EDITORS.

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THE

QUARTERLY COMPENDIUM

OF

MEDICAL SCIENCE.

The attention of our readers is especially called at this season to the *QUARTERLY COMPENDIUM,* which we publish.

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THE CARE OF THE INSANE.

For some years past, in this country, and notably in our own State, that large and growing class of our population, who for some reason or other have lost the ability to care for themselves, has been attracting a large measure of the thoughts of our philanthropists and legislators. The insane of our day are very much better provided for than were those bereft of reason half a century ago; and we find many more human beings confined in asylums. When we stop to reflect upon the subject, the thought comes to us, whether this very improvement in the accommodations offered to insane patients, has not had something to do with the apparent increase of insanity in our time.

We recently visited the Hospital for the Insane, at Norristown, in this State, and upon asking Dr. Harris, the courteous resident physician, to what cause he attributed the cases of insanity under his care, he answered, "The causes are various, but chiefly *alcohol* and *syphilis.*"

The question then suggested itself whether the consumption of alcohol and the prevalence of syphilis is any greater to-day than it was a generation ago. We do know, and have always recognized, that the abuse of alcoholic liquors will in many instances produce an unsettled state of the mind, and oftentimes will render its victim absolutely insane; and the same can, of course, be said, with truth, about syphilis. When we walked through the wards of this magnificent institution, we thought that we saw many men not one whit more insane than are many of those whom one meets daily upon the street. Of course, it is not always an easy matter to pass a verdict upon a man's sanity or insanity, but it seemed that there were some men who were merely harmless cranks, and whose confinement in an asylum seemed hardly necessary to the welfare of the community. The appointments of this institution are very fine, and we do not hesitate to say that the majority of the inmates are now surrounded with many more comforts than they ever enjoyed in their own homes. We do not mean to decry the care of the insane, and we would not deprecate a single effort to restore these poor unfortu-

nates to mental health and to usefulness in the community; but, to repeat, we ask the question, whether the erection of these magnificent institutions, containing the finest of appointments, do not have a tendency, more or less marked, to encourage a weak intellect to give way to its weakness.

They are exceedingly expensive both to erect and to conduct, and thus they constitute a great drain upon the tax-payers of the State. Are we, as a people, any better off, any happier?—is there any less crime, pauperism, or misery, since, than there was before the erection of these expensive institutions? Without being very accurately informed on the statistics of these subjects, which, after all, do not prove very much, we are inclined to think, from daily observation, that the question can be answered in the negative.

In conclusion, we wish to be understood as having the greatest sympathy for the truly insane, but we wish also to suggest that the luxuries of our great modern asylums may not be altogether unmixed blessings.

SHALL WE SLEEP WITH OPEN WINDOWS?

The other day a gentleman in our office remarked:

"I have had no bad colds since I learned to sleep with my windows open."

Now it had been our personal experience that the only "hard colds" we had ever suffered from were contracted precisely by sleeping in rooms to which the night air had free access.

This is a vital point in personal and domestic hygiene, about which the opinions of advisers differ diametrically.

It is well known that the bodily temperature sinks slightly during sleep; the physiological functions act with diminished activity; and hence the resistance of the economy to morbific influences is proportionately lessened.

But it is also well known that at night these influences are more potent and noxious. The air is charged with greater humidity; miasmatic and malarial poisons rise to higher levels, and extend with greater rapidity; the chill of the damp night air is penetrating and dangerous; the emanations from organic decay are more perceptible.

Against these the sleeper is less protected than in the daytime. He has divested himself of his woolen external clothing to put on cotton or linen, and lies between sheets of the same material, between which, at the tops and sides of the bed, the air gains ready access to his unprotected surface. If he is restless, he renders such access yet more easy.

A greater risk awaits him. A sudden fall in temperature at night is no unusual occurrence. In summer a thunder gust, in winter a shift of the wind to the north, often reduces the temperature ten to twenty degrees. The sleeper is unaware of this. He remains exposed to it with no further protection than he found agreeable at the higher temperature until he awakes chilled and stiff, perhaps with the seeds of a serious illness already sown.

These are such positive and unavoidable risks that we should counsel a delicate person to be exceedingly cautious how he ventured on the plan of open windows at night, however much has been said in its favor by popular hygienists.

CLINICAL THERMOMETRY.

With the advent of medical thermometry a new field was opened to scientific as well as clinical activity. It became necessary to have instruments registering with greater precision than those ordinarily found in the shops. Hence, the establishment of thermometric bureaus, as that at Yale College in this country.

How enormously the medical business preponderates in such establishments is evident from the Yale report before us for the year ending June, 1884. Out of a total of 6,390 examined, not less than 6,326 were physician's clinical thermometers!

An examination of the various causes of errors in thermometers shows that such fluctuations arise from widely different causes. The negligence of the manufacturers may produce imperfect instruments. Others are correct in portions of the tube, but quite wide of the mark in other portions.

But aside from results of carelessness, there are other causes of error inseparable to the nature of the instrument. On account of the unstable nature of glass the size of the thermometer's bulb constantly varies. The rapidity and amount of these changes depend upon the manipulation of the maker, the time elapsed since manufacture and the use to which it has been subjected. For a thermometer over a year and a half old, this change is seldom more than fifteen hundredths of a degree Centigrade in a year. For a thermometer over two years old seldom more than a tenth. During the first year it may amount to a degree or more. The change may take place suddenly or grow slowly.

In self-registering instruments the index may introduce errors by slipping in the tube, or by moving by jerks.

As the utmost possible accuracy is desirable in a thermometer intended to test temperature in disease, such institutions as that at Yale cannot fail to be a marked benefit to the diagnostician.

Notes and Comments.

The Application of Cocaine to the Urethra.

The *London Medical Times* tells us that several communications upon this subject have recently been published. Dr. Blumenfeld states in the *Deutsche Medicinische Wochenschrift*, Dec. 11, that he has found the introduction of a small quantity of a two per cent. solution into the urethra by means of a small syringe (keeping the orifice closed for three or four minutes), highly useful in irritable urethra, the irritability being diminished in all cases, and the urethra often becoming anæsthetized completely as far as the posterior part of the prostate. The anæsthesia continues nearly half an hour, and may be prolonged greatly by the frequent employment of a somewhat larger dose. Where the mucous membrane is visible it is found to be remarkably pale in color. Dr. Blumenfeld, although he has had no opportunity as yet of trying the experiment, believes that in some cases of retention of urine, relief will be obtainable from the cocaine alone, without resorting to the catheter. He also suggests that a three or four per cent. ointment may be advantageously carried to the posterior parts of the urethra by means of a caustic-holder. Dr. Fessenden Otis, writing in the *New York Medical Journal*, December 6, after referring to the gratifying results which Professor Pease, of Syracuse, had obtained from the use of a four per cent. solution in an operation for stricture, and also for the relief of a sensitive urethra, gives an account of his own trials made with a two per cent. solution. Dilatation of a very sensitive urethra was effected without the least pain, prior to an operation for lithotomy. In another case, in which sounding for calculus had been only imperfectly performed, it was soon achieved by the aid of cocaine, a stone detected, a narrowed orifice and a stricture divided, and all without any pain. A case in which enlarged prostate was associated with such a state of hyperæsthesia of the urethra that all attempts at passing a catheter and washing out the bladder had been abandoned for weeks, a catheter was passed and the water drawn without any pain whatever. Other similar cases are referred to, and in relation to them Dr. Otis remarks that the best means for giving relief to irritable urethræ, especially when combined with prostatic trouble, "is to attach a tight-fitting half-ounce penis-syringe to the open end of a rubber catheter of 18 or 20 mm. in circumference. After pouring the solution into a small graduate, draw a sufficient quantity up into the catheter. Introduce it for half-an-inch, or until the patient complains of pain, and then press down the piston, gradually driving a few drops in advance of the catheter, rubbing it along with the finger, waiting from three to five minutes, then passing it down about two inches further, and repeating the process of coaxing the fluid back until finally the end of the catheter enters the bladder, consuming altogether about fifteen minutes." The value of cocaine will be found equally great in examinations and operations in irritable anus and rectum. "A four per cent. solution of cocaine in almond oil makes an excellent lubricant for urethral instruments, and I think may prove even better than the watery solution as an application to the urethra. Its use in this way in a few cases has been very satisfactory." In Baltimore, surgeons use cocaine extensively in venereal diseases, Dr. Michael finding it very useful in opening buboes and cauterizing sores. We may refer also to a case narrated by Dr. Croston in the *Boston Medical Journal*, December 11, in which a four per cent. solution of cocaine was employed hypodermically in the removal of an epithelioma of the cheek, four or five injections of four minims each being employed. Without absolutely preventing pain, the operation was rendered easily bearable.

Tonsillitis in Relation to Febrile Attacks in Childhood.

We have all been called upon at different times to see children suffering from feverish attacks where the greatest acumen and the most careful examination fails to reveal any adequate cause. In many such cases, a writer in the *London Med. Times* (January 10, 1885,) tells us that we will find a tonsillitis. Sometimes, but rarely, there will be complaint of pain in the throat.

It is, perhaps, in instances of recurring pharyngitis in children of four years old and upwards that we shall find the remembrance of what has been said most useful. Very often do cases occur where a child is said to have feverish attacks every now and then by mother or doctor, for which it is put to bed and physicked a little, and recovery takes place in a few days. In the intervals these children are generally regarded as being quite well. But they are often of a muddy complexion and capricious in their appetite, and are seen to have chronically enlarged tonsils. The acute attacks supervening on this chronic condition from time to time are liable to be very slight as far as local trouble goes, and consequently are just the cases which we would especially wish to emphasize as being often overlooked. A routine examination, therefore, of the throat should be made in all cases of feverish illness in children, whether or no, complaint be made of pain, and the doctor will be often satisfactorily rewarded by at least the possession of a definite idea as to the nature and cause of the malady he has to pronounce upon and treat.

On the causal connections of these pharyngeal affections in children but a word can be said. They do not seem to be simply catarrhal, or due to exposure, with any great frequency. But they often occur in strumous children, especially in connection with chronically-enlarged tonsils, and very frequently, indeed, in those of a rheumatic or gouty inheritance.

The treatment of the acute attacks does not require any special notice here, but in many cases of chronically enlarged tonsils, excision is of unquestionable value, as minimizing or, perhaps, almost abolishing the acute evil.

How to Give Iodide of Potassium in Syphilis of the Nervous System.

This is a very important subject, because on account of faulty methods of administration many men have lost their faith in the efficacy of this valuable drug.

Dr. William A. Hammond, after stating that the drug must be given in large doses, thus concludes in the *New England Medical Monthly*, January, 1885:

"But there is a point connected with its administration that is, I think, equally important, and that is, that the doses should be increased from day to day. Iodide of potassium is one of those remedies that are rapidly eliminated from the system, and which, therefore, are inert, or almost so, if the dose be maintained at a fixed quantity. It should, therefore, in order to secure its full effect, be given in what the late Dr. E. H. Clark, of Boston, called the "continuing dose," *i. e.*, in increasing doses. Without large doses, I am satisfied that many cases of syphilis of the nervous system that are curable go unrelieved, and unless the doses are gradually increased the stomach is not apt to bear them well. In the way that I have mentioned, and taking care to give it after meals and in a large quantity of water, a dose of two hundred grains will be as well borne by the stomach and the system generally, as one of five grains. Large doses should not be gulped down at a single draught. A dose of from fifty to two hundred grains should be taken in from half a pint to a pint or more of water, and the patient should take it by sips during fifteen minutes or half an hour. In this way I am satisfied its action is increased and the liability to derange the stomach reduced to a minimum."

Cannabis Indica in Sick Headache.

Any drug that will relieve this obstinate and distressing complaint is well worthy of mention. Dr. Francis F. Brown tells us in the *Boston M. and S. Jour.*, October 23, 1884, that he has had good results from the use of cannabis indica. His experience has been quite limited, but he has had a few patients whose improvement from its use, after the failure of tonic treatment alone, has been very marked. One case, a lady of thirty-three—whose mother suffered all her life from migraine, and father from migraine and asthma—who had been having attacks increasing in severity and frequency for months, till she was having one nearly every week, each attack lasting two or three days, experienced immediate relief, and while she had threatenings did not have a decided attack for six months. This was three years ago; her improvement, though not immunity, has continued.

Though some begin to feel relief at once, the drug should not be considered to have had a fair trial till after months of continuous use. He has seen patients relieved after persevering four or

five months who saw little or no benefit in three. The notorious uncertainty of the quality of this drug is a decided drawback to a satisfactory trial of it. What proportion of cases will be benefited by it, and how permanent will be the relief, he is not prepared to say.

Gonorrhœa in the Female.

We have already referred to Dr. Currier's papers on this subject in the *New York Med. Jour.*, and now, in the issue of January 24, 1885, we find his conclusions as follows:

1. Gonorrhœa in the female deserves more thorough investigation than it has yet received, especially in the light of recently-established facts.

2. The diagnosis of the disease, with improved methods of investigation, chief among which are Sims's speculum and the microscope, is not so difficult as it has hitherto been considered, even in the absence of direct information of actual exposure to gonorrhœal infection.

3. There is a difference between the characteristic discharge of true gonorrhœa, as to both its nature and its effects, and other mucoid discharges from the female genital tract. As a corollary to the foregoing statement, while investigators differ as to the significance of the micrococcus of gonorrhœa, its constant presence in the discharges is not denied.

4. Gonorrhœa in the female is identical with gonorrhœa in the male. The fact of individual peculiarities and susceptibilities is not questioned.

5. A series of careful investigations upon well-defined cases, in a hospital or other place in which the changes and developments can be accurately noted, is desirable. No line of treatment can be recommended as unfailing and entirely satisfactory until the results of such investigations are known.

Rhigolene.

Truly there is very little "new under the sun." The excitement over cocaine as a local anæsthetic has caused some gentlemen to revive rhigolene, which, some years ago, was highly vaunted as a local anæsthetic, used in spray form. It was then claimed that it acted as a refrigerant, and would so effectually freeze the part upon which the spray was directed as to obtund or destroy its sensibility. It did not seem to give satisfaction, however, for its use was soon discarded. It does have some effect in destroying sensibility, as we know from personal experience; but its effects are very evanescent, and it is necessary that the spray shall be continuously directed on the part throughout the whole of the operation, which must necessarily interfere with the surgeon's manipulations to a greater or lesser extent. It might be used in conjunction with cocaine. When not in use it should be kept on ice or in a cool room, tightly corked. In a warm place it would probably burst the bottle or blow out the cork. It has been accused of possessing explosive properties, but probably it is safe if not brought in contact with an open flame. It should not be used for cases which require artificial light.

Tardy Constitutional Syphilis.

To the New York Clinical Society (November 28, 1884), Dr. L. B. Bangs related the case of a man who had a sore on the pubic region in 1872, which healed in a month, and was followed by no further manifestations until 1881, when a lump as large as a hazel-nut appeared just over the episternal notch. During the following winter the patient was subjected to hardships and lost strength; at the same time the lump increased in size and became red and painful. A traveling physician opened it and cauterized it, but only a little discharge took place. In a short time a like growth appeared upon the clavicle, became red and painful, discharged and speedily closed. The patient was now treated for syphilis, and took a Turkish bath every day for four months, but his debility increased. In 1883 he was still growing feebler, and had ulceration of the throat, when he presented himself to another physician, who diagnosticated syphilis, gave mercury in tonic doses, and effected a cure in four weeks.

The peculiar features in the case were the absence of all symptoms during the nine years that followed the initial lesion, and the fact that the scars left by the growths were not circular but linear.

Multiple Fracture of the Bones of the Upper Extremity.

As a matter possessing much interest, we note the following case which Dr. Puzey exhibited before the Liverpool Medical Institution at its meeting December 4, 1884:

The patient was a man admitted into the Northern Hospital in December of last year. Whilst oiling some machinery at rest, it was suddenly put in motion: the man's arm was caught in a fly-wheel, and he was thrown down. On admission into the hospital, the arm was so much swollen that the injuries could not be accurately ascertained,

and a patient attempt was made to preserve the limb. In November last, however, disorganization showed itself in the wrist-joint and the second phalangeal joint of the middle finger and the arm was amputated. Amongst the injuries brought to light were the following: Oblique fracture of upper part of humerus, below this a united oblique and comminuted fracture, and below this again a ununited fracture. In the upper part of the fore-arm was a comminuted fracture of radius and ulna: in the lower part a fracture of the radius that had united to the ulna.

The Treatment of Acute Laryngitis.

Dr. John M. Keating tells us in the *Archives of Pediatrics*, January 15, 1885, that he has frequently found the following treatment very efficacious:

In conjunction with a hot foot-bath, the temperature of the water as hot as the hand can bear with comfort, and the feet afterwards wrapt in flannel or Canton-flannel night-drawers with the feet of extra length and sewed up at the extremities, he prescribes the following in a half tumblerful of water:

℞.		
	Tinct. aconit rad.,	gtt. iij.
	Spts. ætheris nit. dulc.,	ʒj.
	Syr. scillæ co.,	ʒj.

This is given in frequently-repeated dessertspoonful doses throughout the night. A soft handkerchief wrung with ice-cold water and surrounded by a silk one or a piece of flannel is applied.

If the cough continues, and becomes bronchial, it is well to produce a certain amount of counter-irritation of the chest. Ordinary camphorated oil is about the best. In addition to the ipecac, we should recommend small doses of castor oil, the object being to relieve the congestion of the bronchial mucous membrane by acting on the intestinal mucous membrane.

Excision of a Tumor from the Brain.

Some time since we reported the performance of this operation in London, and we are now called upon to note its fatal sequence. The operation was performed November 25, and the patient did well until December 15. On the morning of the 16th he was suddenly seized with a rigor, followed by fever, sickness, and pain in the head. A hernia cerebra of large dimensions supervened. The pyrexia increased and continued, the patient emaciated, gradually sank, and died on December 23, the intelligence remaining intact to the last.

On post-mortem exrmination meningitis was found at the lower border of the wound, spreading downwards towards the base of the brain on the same side, the whole of which was inflamed and covered with plastic lymph. With the exception of the loss of cerebral tissue, caused by the operation, the brain was otherwise practically normal.

Chorea Successfully Treated with Chloroform Inhalations.

Before the Liverpool Medical Institution (December 4, 1884), Dr. Bostick related the history of a case of chorea in a young girl, wherein conium, chloral, bromide of potassium, etc., all proved useless. Chloroform was therefore given to produce sleep, and a very little had the desired effect; it was, therefore, repeated when necessary. This was continued for eight days; but, as soon as she was allowed to come round thoroughly, she was as violent as ever; the chloroform was therefore given continuously for forty-eight hours, at the end of which time, the movements being much more easily restrained, the limbs were wrapped in cotton-wool, and firmly bandaged to the bed. This seemed to be of great service to her; and, from this time, she gradually improved, and ultimately made a rapid and complete recovery.

Albuminuria After Chloroform.

From an English exchange we learn that M. Ferrier, one of the surgeons attached to the Bichat Hospital, and M. Patein, its resident chemist, have made a series of researches to discover the condition of urine after administering chloroform, followed by surgical operations. In six cases out of nine, albumen was present in the urine. The presence of albumen in urine has apparently a closer connection with the anæsthetic condition than with its duration. In some cases chloroform was administered during 20, 45, and 55 minutes without the slightest trace of albumen being found in the urine. The result of these researches indicates that there are certain pathogenic conditions connected with the appearance of albumen in urine which have not yet been elucidated. M. Bouchard's interesting experiments taught that albuminuria may be provoked by lesions of the peripheral nervous system, also from inhaling chloroform, even in small doses.

Osmic Acid in Sciatica.

All contributions to the therapeutics of this most painful and obstinate disease are worthy of

record, since our present methods of treatment are not very satisfactory. Dr. Jas. Merces reports in the *Lancet*, January 10, 1885, his experience with osmic acid in eighteen cases. He used a one per cent. solution, injected, in doses of from three to five minims, deeply over the sciatic nerve, at a point midway between the tuber ischii and trochantor major. It produced no constitutional effects, but locally at the seat of the puncture the patient invariably complained of a numb feeling, which, however, was transient. In some cases the effect was marvellous, the patient being able after a short time to stand on the affected side, a feat which he had been unable to do for years.

Successive Craniotomies in the Same Subject.

It is usually believed that craniotomy is an operation that possesses dangers for the mother, and on this account some men hesitate to perform it. While we imagine that when unskilfully performed it may prove very serious in its consequences, yet the case which Dr. Fancourt Barnes reports in the *British Med. Jour.*, January 10, 1885, would seem to show that the operation need not be so much dreaded as far as the mother is concerned. In the case in question, the woman was successfully delivered by craniotomy on six occasions.

Correspondence.

Embolic Hemiplegia.

Eds. Med. and Surg. Reporter:—

The patient whose case I am about to report died very suddenly on January 5, 1885, while in the act of correcting a pupil in the district school he was at the time teaching. He was 24 years of age. On May 11, 1882, being then convalescing from an attack of subacute endocarditis, while walking in a field near his home he was suddenly seized with a severe pain in the head and fell to the ground. He was carried to the house and I was summoned. When I arrived he was perfectly unconscious, and paralysis of motion and sensation of the left side of the body was complete. Hemiplegia from cerebral embolism was at once diagnosticated, the knowledge of the history of his case previously aiding somewhat in the diagnosis. On the second or third day after this the patient manifested great pain in the right arm. Upon examination, discovered the right subclavian artery was occluded by an embolus, so that no blood passed into the brachial artery. In the course of six or eight hours this obstruction moved down to the bifurcation of the brachial artery. Here it remained, and the collateral circulation was established, but no pulsation could be felt in the radial artery for ten days. The skin of the little finger sloughed, but was finally reproduced. The treatment thus far had been medicinally, by amm. carb. and small doses of digitalis and opium. Gradual improvement occurred, and during the following winter, 1882–1883, he began to stand and walk with the aid of a person at his left side. The faradic current of electricity was used through the muscles of the left arm and leg. During the summer of 1883 he was able to walk with a crutch. In the winter of 1883–1884, continued his studies at the normal school, his mental faculties being in a perfect condition. Spring and summer of 1884 did a good deal of bracket work with a scroll saw, although the left hand was paralyzed so far as the extensor muscles were concerned, Fall of 1884 taught a district school of 23 scholars, and began the same school the present winter, when his career suddenly ended, as described in the beginning of this report.

Autopsy forty-four hours after death.—Upon removing the calvaria a large quantity of serous fluid escaped on the right side. Separating the convolutions near the anterior border of the right middle cerebral lobe, a cavity large enough to contain a good-sized hen's egg was discovered. This cavity was the course of the fluid above spoken of, and which escaped through a small rent in the sac that confined it. Otherwise the brain and its membranes were healthy. Slight fatty change was found at the base of the mitral valve. At the origin of the large pulmonary veins at the root of the lungs, and contained within their calibre, was found as much as a dessertspoonful of bony or calcareous matter. The apices of both lungs showed deposits of caseous matter, as evidence of former disease there. Other organs not examined.

The cause of instant death was thought to be nervous excitement, causing an increased circulation through the brain, which ruptnred the sac that enclosed the fluid in the cavity. This produced a shock which caused the weakened heart to stop its work. It would also appear that the source of the embolus in the spring of 1882 was the pulmonary veins or endocardium, and that the first one went into the right middle cerebral artery, and the one that followed a few days later into the subclavian artery of the right side.

L. M. Greene, M. D.

Bethel, Vt., January 22, 1885.

Curious Case of Foreign Body in the Bladder.

Eds. Med. and Surg. Reporter:—

During a recent Cuban revolt, one of the soldiers, an Americo-Cuban patriot, while on the field, was "brushed" by a solid shot which passed within a short distance of his abdomen. He thought no more about it, except that he was somewhat shocked, having been thrown to the ground by the force of the passing ball. In a few hours he thought he would empty his bladder, but found himself unable to do so. Surgeons were scarce, but finding a wounded officer upon the ground he stopped to help him, and together they reached a place of security near a swamp, where, after making the officer comfortable, he acquainted him with the trouble he had with his bladder, which by this time was wellnigh unbearable. The officer having some knowl-

edge of surgery pulled a reed from the swamp, and after clearing out the pith managed to pass it, and gave the soldier relief. They were both so pleased with the result that the reed was tied in place and not removed until the following evening.

No trouble was experienced until about three months afterward, when the soldier, who had made his way to the United States, found the urine voided with more and more difficulty, until he applied to Dr. Jos. Dickson, Pittsburgh, Pa. The sound showed a foreign body about at the membranous portion of the urethra. The left lateral operation was made, and as the sound would go no further than the obstruction, Dr. Dickson cut for the point of the sound. In feeling for the stone, his finger pushed the obstruction into the bladder, and from this time the ordinary operation was done. When the stone was extracted, it was found to be the size of a large hickory-nut, with an elongated process on it. This process had occupied the lower portion of the urethra, and was a complete mould of it, even to the little projections into the vesiculæ-seminales. The large knob end was of course in the bladder. When it (the stone) was examined, a piece of the reed which had broken off three months before was found in the centre, and around which the concretion had formed. When the patient recovered from the anæsthetic, he gave the story as detailed above, which he had not previously told, as he did not connect that with his trouble. The reed was jointed, and had separated at one of the joints. The recovery was complete.

T. L. Hazzard, M. D.

Allegheny, Pa.

Jaborandi for Inflammatory Affections of the Skin.

Eds. Med. and Surg. Reporter :—

In the *Therapeutic Gazette* for November, Dr. Thompson, of Tennessee, says that he has been treating erysipelas for several years with jaborandi. Recalling the fact that this drug has, or is supposed to have, special affinity for the skin, when given by the mouth, I determined to test its efficacy in all forms of inflammatory conditions of the skin, and soon opportunity offered in the following cases :

Case 1. A well-marked case of erysipelas of the face, starting from the nose. I saw the man late in afternoon. Gave pill hydg., gr. x., at bedtime ; followed in morning by saline, and gave—

℞. Fl. ext. jaborandi, ℥ j.
Tr. opii,
Glycerin., āā ℥ ss. M.

Sig.—Paint over the part with chicken feather every two hours.

Continued treatment for three days, when I considered the patient cured.

Case 2. A lady, with irritable spine, was in the habit, at certain times, of applying a counter-irritant of croton oil ; but this time she used too much, and by some means the effect was diffused over the whole surface of the body. When I was called, three days later, the whole surface of the body was extremely red, painful, and œdematous. All the usual domestic remedies had been tried without effect, at least without benefit. I ordered the mixture, as in case one, to be used. The pain was relieved almost instantly, the redness and swelling gradually subsided, and on the third day there was nothing left of the inflammation, but an abundant exfoliation of the cuticle was going on, which finally left the skin in excellent condition.

It may be proper to add, that in this case I ordered the woolen underwear to be exchanged for cotton, and gave a slight purge with Epsom salts.

Case 3. My wife severely scalded her hand with boiling liquid. It was remarkably painful, and the burned surface covered most of the hand. When I saw her about half an hour after, I saturated a compress with equal parts of fl. ext. jaborandi and laudanum, and applied to the burned surface. This totally prevented the inflammatory action, which I am sure would have followed from the severity and extent of the scalded surface.

From my experience with this limited number of cases I am sure that we have in this drug a valuable addition to our therapeutics of acute inflammatory affections of the skin. In proper combination it acts quickly and efficiently.

W. W. Claybaugh, M. D.

Dunbar, Neb., January 21, 1885.

Injections of Carbolic Acid in Abortion.

Eds. Med. and Surg. Reporter :—

An excellent article in the Med. and Surg. Reporter for January 17, by Dr. Coover, particularly attracted my notice, it being on "miscarriages," which for many years I have treated in precisely the same manner, except I would add to the doctor's excellent treatment one indication, which, being answered and followed out, has, I believe, in several of my cases, saved human life. I refer to those cases where the ovum or fœtus and placenta are not expelled at once, but come away piecemeal and in a decomposed condition ; at such times daily warm vaginal injections of carbolic acid and water have answered the indication and completely filled the bill.

Lincoln, Me. C. Fuller, M. D.

News and Miscellany.

The Medical Profession in the Argentine Republic.

While we were aware that good physicians are in demand in South American countries, we were hardly prepared for the following account, which we find published in the *Brit. Med. Jour.*, January 10, 1885 :

The prospects of the medical profession in the Argentine Republic, as related in the *South American Journal*, are of an unusually satisfactory character ; and in these days, when the cry of overcrowding is heard from every profession (and the medical profession is no exception), the following statements will be read with refreshing interest, and give to the despairing hope.

"All the medical men here are said to be making fortunes, and there is still room for 'healthy competition.'

"The ordinary charge for a consultation at a medical man's house is said to be two dollars; for a visit, four dollars; for attendance at confinement when all goes well, about $100; but when any special care or operation is required, these fees mount up to hundreds of dollars. Accounts for medical attendance are sent in and paid without remark, which would make the hair of a paterfamilias in the 'old country' stand on end. My friend mentions the following fees as having been lately obtained by doctors who, though of good standing, are not looked upon as 'stars:' for extraction of ovarian tumor, $7,000; amputation of arm, principal, $300; amputation of arm, two assistants, each, $2,000; delivery, with operation, $2,000; attendance during typhoid fever, $1,000; visit by a physician for dropsy, $250; consultation-fees, $100 and upwards.

"Much depends, of course, on the position of the patient, but there are sufficient wealthy people to make up for any small fees or gratuitous work which may have to be done among the poorer classes.

"Nor are we led to believe that there are any serious drawbacks to this pleasant outlook. The Argentine Republic, which, as is well known, comprises a vast area of fertile territory, extending from the tropics down to Cape Horn, with a firm and settled government, has a climate pronounced to be one of the most temperate in the world, and should be the healthiest; but, owing to defective sanitary arrangements, it is not so. Buenos Ayres, with a population of about 300,000, has a mortality of 33, which it may reasonably be expected will be considerably lessened in view of the extensive drainage and water-works now in course of construction.

"Expenses are, of course, much higher in South America than in Europe, and it would be unwise to compare charges in two places without taking this into consideration.

"In the city of Buenos Ayres, there are said to be now practicing about a dozen English-speaking doctors, all doing well. In other large cities of the interior and in the country, there are a good number to be found. But immigration is flowing into the country, and everything growing so fast, that there seems to be no fear of overcrowding.

"Owing to the facilities offered in the government schools and universities, a young man in the Argentine Republic obtains a complete education free from all expenses in fees. The medical schools are well attended, and the natives prove apt scholars. The standard (so far as my friend can judge, he not being of the medical profession) seems to be as high as in European universities, and there are many Argentine doctors who would take a high rank in their profession in any part of the world. Besides these native taught doctors, there are in practice in the Argentine Republic many medical men of every European nationality; and, at a first glance, one would think that the profession was rather over-crowded.

"However, when one sees that nearly all the doctors are making fortunes, and hears of the enormous fees which they can easily obtain, he perceives that there is still room for 'healthy competition.'

"The statements given above are confirmed by another correspondent, who states that a friend of his paid £100 for attendance at the confinement of his wife; and adds that the charges by dentists are on a like magnificent scale, as much as £5 or £6 being paid for stopping a tooth. There, however, appears to be one important condition: before a doctor is allowed to practice in the Argentine Republic, he must pass an examination, and be licensed by the Government Medical Board: and before he can do this he must, of course, be master of the Spanish language. The population of the country is so cosmopolitan, that the more modern languages he speaks, the better will be his chances of success."

An Estimate of Dr. Holmes.

From a critical paper by Edmund C. Stedman in the February *Century* we quote the following: "If the question is asked, Would the verse of Doctor Holmes be held in so much favor if he had not confirmed his reputation by prose replete with poetic humor and analogy? The fairest answer may be in the negative. Together, his writings surely owe their main success to an approximate exhibition of the author himself. Where the man is even more lively than his work, the public takes kindly to the one and the other. The jester is privileged even in the court of art and letters; yet if one could apply to Holmes—the jester, homilist, and man of feeling—his own process, we should have analysis indeed. Were the theme assigned to himself, we should have an inimitably honest setting forth of his merits and foibles, from this keen anatomist of mind and body, this smile-begetter, this purveyor to so many feasts. As a New Englander, he long ago was awarded the highest sectional praise—that of being among all his tribe the cutest. His cleverness and versatility bewilder outside judges. Is he a genius? By all means. And in what degree? His prose, for the most part, is peculiarly original. His serious poetry scarcely has been the serious work of his life; but in his specialty, verse suited to the frolic or pathos of occasions, he has given us much of the best-delivered in his own time, and has excelled all others in delivery. Both his strength and weakness lie in his genial temper and his brisk, speculative habit of mind. For, though almost the only modern poet who has infused enough spirit into table and rostrum verse to make it worth recording, his poetry has appealed to the present rather than the future; and, again, he has too curious and analytic a brain for purely artistic work. Of Holmes as a satirist, which it is not unusual to call him, I have said but little. His metrical satires are of the amiable sort that debars him from kinsmanship with the Juvenals of old, or the Popes and Churchills of more recent times. There is more real satire in one of Hosea Biglow's lyrics than in all our laughing philosopher's irony, rhymed and unrhymed. Yet he is a keen observer of the follies and fancies which satire makes its food. Give him personages, reminiscences, manners, to touch upon, and he is quite at home. He may not reproduce these imaginatively, in their stronger combinations; but the Autocrat makes no unseemly boast when he says: 'It was in teaching of Life that we came together. I thought I knew something about that, that I could speak

or write about it to some purpose.' Let us consider, then, that if Holmes had died young, we should have missed a choice example of the New England fibre which strengthens while it lasts; that he has lived to round a personality that will be traditional for at least the time granted to one or two less characteristic worthies of revolutionary days; that ''twas all he wished'—a few of his lyrics already belong to our select analogy, and one or two of his books must be counted as factors in what twentieth-century chroniclers will term (and here is a matter for reflection) the development of 'early' American literature."

General Grant's Accident at Shiloh.

From General Grant's illustrated account of the Battle of Shiloh, in the February *Century*, we quote the following: "In fact, on Friday, the 4th, I was very much injured by my horse falling with me and on me while I was trying to get to the front, where firing had been heard. The night was one of impenetrable darkness, with rain pouring down in torrents; nothing was visible to the eye except as revealed by the frequent flashes of lightning. Under these circumstances I had to trust to the horse, without guidance, to keep the road. I had not gone far, however, when I met General W. H. L. Wallace and General (then Colonel) McPherson coming from the direction of the front. They said all was quiet so far as the enemy was concerned. On the way back to the boat my horse's feet slipped from under him, and he fell with my leg under his body. The extreme softness of the ground, from the excessive rains of the few preceding days, no doubt saved me from a severe injury and protracted lameness. As it was, my ankle was very much injured; so much so, that my boot had to be cut off. During the battle, and for two or three days after, I was unable to walk except with crutches.

* * * * *

"During the night rain fell in torrents, and our troops were exposed to the storm without shelter. I made my headquarters under a tree a few hundred yards back from the river bank. My ankle was so much swollen from the fall of my horse the Friday night preceding, and the bruise was so painful, that I could get no rest. The drenching rain would have precluded the possibility of sleep, without this additional cause. Some time after midnight, growing restive under the storm and the continuous pain, I moved back to the log-house on the bank. This had been taken as a hospital, and all night wounded men were being brought in, their wounds dressed, a leg or an arm amputated, as the case might require, and everything being done to save life or alleviate suffering. The sight was more unendurable than encountering the rebel fire, and I returned to my tree in the rain."

The Origin of Opium.

The *Popular Science News* tells us that according to the Bengali legend, there once lived, on the banks of the holy river Ganga, a Rishi, or sage, in whose hut, made of palm leaves, there was a mouse, which became a favorite with the seer, and was endowed by him with the gift of speech. After a while, the mouse, having been frightened by a cat, at its earnest solicitations was changed by Rishi into a cat; then, alarmed by dogs, into a dog; then into an ape; then into a boar; then into an elephant; and finally, being still discontented with its lot, into a beautiful maiden, to whom the sage gave the name of "Postomani," or the "poppy-seed lady." One day, whilst tending her plants, the king approached the Rishi's cottage, and was invited to rest and refresh himself by Postomani, who offered him some delicious fruit. The king, however, struck by the girl's beauty, refused to eat until she had told him her parentage. Postomani, to deceive the king, told him she was a princess, whom the Rishi had found in the woods, and had brought up. The upshot was, that the king made love to the girl, and they were married by the holy sage. She was treated as the favorite queen, and was very happy; but one day, whilst standing by a well, she turned giddy, fell into the water, and died. The Rishi then appeared before the king, and begged him not to give way to consuming grief, assuring him that the late queen was not of royal blood. Said he: "She was born a mouse, and, according to her own wish, I changed her successively into a cat, a dog, a boar, an elephant, and a lovely girl. Let her body remain in the well; fill up the well with earth. Out of her flesh and bones will grow a tree, which shall be called, after her, 'Posto;' that is, the 'poppy tree.'" From this tree will be obtained a drug called 'opium,' which will be celebrated through all ages, and which will be either swallowed or smoked till the end of time. The opium swallower or smoker will have one quality of each of the animals to which Postomani was transformed. He will be mischievous, like a mouse; fond of milk, like a cat; quarrelsome, like a dog; filthy, like an ape; savage, like a boar; and high-tempered, like a queen."

The Precariousness of a Physician's Income.

The following very true remarks we read in the *London Med. Times*, January 10, 1885:

No profession suffers more than ours from the financial pressure incident to sudden failure of health, to accident and to misfortune occurring in the course of a professional career. The medical man, unlike the trader, must earn his living with his own brain and his own hands. When he is disabled even temporarily in mind or body, his power of earning leaves him. A great merchant, when his physician expressed surprise at the serenity with which he bore a long-continued illness, answered, "On my sick-bed I have the consolation of knowing that others are toiling for me day and night; manager and clerks working in my office, ships bringing my merchandise over sea to the markets, and sellers earning me money, and keeping my children, even while I lie here disabled." The medical man has no such comfort. For him the suspension of working power means the suspension of earning power. Bodily pain is only too often intensified by mental suffering and financial worry, and the same blow which affects his physical well-being often shatters his prospects in life, and leaves him more or less helpless. Even in temporary emergencies, the

necessity of paying for a substitute at a time when his earnings are diminished, greatly adds to his cares, and tends rapidly to exhaust his resources.

Died from a Whipping.

The following case, which we find in a despatch dated January 31, in one of our lay contemporaries, deserves more than passing notice:

"Josiah McGrath, of Blue Marsh, an isolated portion of Heidelberg township, in this state, came to Reading to-day and reported to the authorities the death of his little daughter from the result of a whipping she received from her school teacher. The little girl was six years old, and was puny, having just recovered from a severe attack of scarlet fever. The teacher is a big, burly, strong fellow. Mr. McGrath says:

"'My little girl received a whipping in school in the afternoon, just before it closed for the day. When she came home I examined her back, and found on it three large and heavy black and blue welts, as if made with a thick instrument. There was also a mark on her chin, where she said the teacher had struck her with a whip. She told me that the teacher took her by the arm and held her forward against the desk, and struck her with all his might with the whip. When she came home she complained of internal pain. I did not tell her mother, because my wife is critically ill. In forty-eight hours the little one was dead. The heavy welts are still on the dead body of the little one.'"

The Abuse of Alcoholic Liquors.

From an exchange we learn that a prolonged discussion upon this subject has been recently carried on in the German Society of Public Hygiene. The arguments advanced were not new, but they were supported by a number of interesting and important facts. Herr Mehlhausen, who closed the debate (which has been continued through several numbers of the *Deutsche Medizinal-Zeitung*), referred to the extended observations which had been made in the Prussian army with reference to the utility of serving rations of schnapps to soldiers when in active service. The experiment had been thoroughly tried by the army surgeons, with the result of their abandoning spirits for tea and coffee.

It was further stated that the majority of cases of frostbite and sunstroke in campaigns were among those who were addicted to strong drink.

It was not the opinion of the Society that such radical measures should be resorted to as had been taken in Maine, but it was suggested that much might be done by improving the quality of spirits and regulating their sale more strictly. As might be inferred, there was no plea for total abstinence.

Two Famous Opium-Eaters.

With reference to the habits of Coleridge and De Quincey, Cornelius Nicholson writes as follows to the *Brit. Med. Jour.*, January 10, 1885:

I had the honor of knowing both Coleridge and De Quincey, and had more or less quaintance with their habits. There was this difference between them as to their opium-eating; De Quincey was systematic to a degree, both when advancing from lesser to larger doses, and after Dr. Scambler's warning, when gradually lowering himself from the fatal quantity he had once reached. But Coleridge took his opium by fits and starts, as he did everything else, occasionally in such excess as to render him *hors de combat*. Take this incident for an illustration: Dr. Dibdin says he walked through sleet and snow to hear one of Coleridge's lectures on Shakespeare at the London Philosophical Society, and the lecturer never appeared. He had taken an unusual quantity, and forgotten all about the appointed lecture. When eventually the members of his family placed Coleridge as a boarder with James Gillman, a medical practitioner at Highgate, this man judiciously reclaimed the "old man eloquent" from opium-eating.

Philadelphia Clinical Society.

Stated meeting, January 23, 1885. The annual election of officers resulted as follows:

President—Dr. Edward E. Montgomery.
First Vice-President—Dr. John B. Roberts.
Second Vice-President—Dr. Amy L. Barton.
Corresponding Secretary—Dr. Ida E. Richardson.
Recording Secretary—Dr. I. G. Heilman.
Reporting Secretary—Dr. Mary Millik.
Treasurer—Dr. L. Brewer Hall.
Councillors—Dr. James B. Walker, Dr. Daniel Longaker, Dr. Clara Marshall, Dr. Henry Beates, Dr. Henry Leffman.

Items.

—Darwin says there is a living principle in fruit. Does he refer to worms?

—In the *Med. Press*, January 7, 1885, Dr. W. F. Smart reports a case of bullet-wound involving right lobe of liver, with extraction and recovery.

—A young woman of Weymouth, England, recently committed suicide by taking three bottles of chlorodyne. The jury recommended that chlorodyne should be placed among the poisons not saleable except upon prescription.

—The rage for sanitation has spread even to the little kingdom of Servia, which country has sent a commission to England for the purpose of inquiring into and inspecting the various systems of drainage, water-supply, disinfection, etc.

—In the *Lancet*, November 29, 1884, Dr. Sinclair reports a most violent case of acute chorea, in a boy aged twelve years, the result of fright, associated with night screaming and incontinence of urine, that was entirely cured by conium juice.

—In the *Lancet*, October, 1884, p. 669, honey is suggested as a good vehicle for the administration of quinine to children. If the alkaloid be placed in the centre of a small spoonful of honey, the strongest aversion to the flavor will be entirely overcome.

—Dr. L. A. Malone contributes to the *Archives of Pediatrics*, January 15, 1885, a case of hemorrhagic measles, complicated with broncho-pneumonia, supra-orbital abscess, purulent ophthalmia, perforation of the cornea, metastatic abscesses, and spontaneous gangrene: death.

—To avoid as far as possible risk of infection in surgical procedures, Professor Esmarch is stated by the *St. Petersburger Med. Wochenschrift* to have discarded wooden operating-tables and to employ only those made of metal. All the instruments used are nickel-plated and metal-handled.

—Dr. Morgan Hughes (*Brit. Med. Jour.*, January 3, 1885,) has succeeded in relieving severe toothache by the application of a ten per cent. solution of hydrochlorate of cocaine in oil of cloves, applied freely by means of pledgets of cotton-wool, both to the pulp-cavity and to the gums.

—To prevent rapid decomposition of corpses the *Deutsche Medicinische Zeitung* (*Pharmaceutische Centralhalle*), July 17, 1884, suggests washing them with a one per cent. solution of corrosive sublimate, and fitting up the interior of the coffins with wood-wool saturated with the same preservative.

—It is announced that the synthesis of saccharose has been accomplished by MM. Aubert and Giraud, and it is anticipated that the discovery may eventually be of vast importance to the sugar industry. The amylaceous matter of the potato is first converted into glucose and then exposed to the action of a strong electric current.

—The following deaths have been recently announced: Dr. von Wittich, lately Professor of Physiology in the University of Königsbreg; Dr. Karl Vierordt, lately Professor of Physiology in the University of Tübingen; and Dr. F. Chvostek, of Vienna, well known for his researches in electro-therapeutics.

—In the *British Medical Journal*, January 3, 1885, Mr. Blaker publishes the case of a woman, aged about fifty, on whom he had performed lumbar colotomy thirteen months previously, on account of rectal epithelioma. She had gone about without further trouble from the cancer until quite recently; and he had similar, if not better results, in three out of five cases.

—According to *Mittheilungen über Landwirthschaft*, vaseline is a good preservative for eggs. The eggs should be thoroughly washed, and rubbed in with vaseline previously melted with three-tenths per cent. of salicylic acid. The operation should be performed twice, the latter one month after the former. On boiling, the skin of vaseline easily separates from the eggs. Eggs thus treated are said to keep perfectly fresh for a year.

—Dr. Clement Godson reports (*Brit. Med. Jour.*, January 3, 1885,) that he has performed two operations for the removal of vascular growths from the meatus urinarius, after having twice painted the growth, and the area surrounding its attachment, with a twenty per cent. solution of cocaine, seizing it with forceps, and cutting it off with curved scissors, and on neither occasion was anything felt by the patient.

—In the *Ejened. Klin. Gazeta*, No. 13, 1884, p. 236, Dr. Bragin, of the Life-Guard Finland Regiment, describes eight cases of erysipelas treated by painting, three times daily, with five per cent. solution of trichlorphenol. The painted parts were kept covered with a thin layer of hygroscopic wadding. In all the cases, after several applications, redness and tension had diminished, and the spread of erysipelas became slower. From fifteen to eighteen paintings were usually sufficient to cure the disease.

—From the *St. Louis Med. Jour.* we learn that Dr. Seeseman, in the *Petersburger Medicinische Wochenschrift*, states that a corpse may be made to retain the natural form of expresssion for months by (*a*) injecting into it a solution consisting of four to five per cent. of *aluminium chloride* dissolved in a mixture of two parts of *alcohol* of ninety per cent. and one part of *glycerine;* (*b*) painting the entire epidermis with *vaseline.* The quantity of liquid required for injection is in the proportion of one tenth to one-seventh of the weight of the corpse.

—At a meeting of the Suffolk Medical Society (*Boston Medical Journal*), Dr. Graham read an account sent him by a patient, of eighteen fractures he had sustained during the past eighteen years of his life, these being all which he could distinctly remember. Writing fourteen or fifteen years after that age, he had met with no additional fracture. Of the eighteen fractures, nine occurred in the right arm, two in the left arm, three in the left leg, two in the right leg, and one in each collar bone. His father broke his bones fourteen times, and the father's cousin twenty-one times, the father's paternal uncle being also a "bone-breaker."

—M. Ricord, at a recent meeting of the Académie de Médecine, made what he described as a confession of faith. He had witnessed all the epidemics of cholera, the first, in 1832, included. At that moment there were 600 patients in the hospital where he was physician. Not one of these 600, either before the entry or during the residence of the cholera patients, was attacked with cholera. Not one of the nurses, male or female, nor of the medical officers, caught cholera. Dr. Ricord adds that, during this epidemic, he did not see any facts which led him to believe that cholera is contagious. His conviction remains the same after studying the subsequent epidemics, and he is strongly opposed to quarantines, which are irksome and useless.

QUERIES AND REPLIES.

MESSRS. EDITORS:—

What is the difference between the diploma of L. R. C. P. E., L. F. P. & S., Glasgow, and the M. D. granted by the best medical schools of this country? Are they not equal in point of merit, medical scholarship, and the right they bestow on those who hold them, to practice medicine in this country? An answer will greatly oblige MEDICUS.

Answer.—Yes, for all practical purposes the degrees are equal.

MESSRS. EDITORS:—

Can any reader of the REPORTER give me a reliable remedy for acne rosacea, or acne pustulosa? J. T. B.

MESSRS. EDITORS:—

Who uses the irisin comp. pill, the formula of which, as given by the manufacturers, is—

℞.	Irisin,	gr. ¼.
	Podoph.,	gr. 1-10.
	Strych.,	gr. 1-40!

And what is the pill used for? A little definite information would help an INQUIRER.

THE

MEDICAL AND SURGICAL REPORTER.

No. 1459.] PHILADELPHIA, FEBRUARY 14, 1885. [Vol. LII.—No. 7.

ORIGINAL DEPARTMENT.

LECTURE.

CLINICAL LECTURE ON DISEASES OF WOMEN, DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROF. T. GAILLARD THOMAS, M. D.

Reported for the MEDICAL AND SURGICAL REPORTER.

REPEATED PREMATURE LABOR FROM PROBABLE FATTY DEGENERATION OF THE PLACENTA.

GENTLEMEN: The case which I now bring before you is one of unusual interest, and the history which the patient give of herself is a very sad one. Her name is Mrs. Elizabeth L——. She was born in the United States, is twenty-two years old, and has been married four years. She has given birth to four children, but every one of them has been still-born. The account that she gives of them is as follows: None of them were born at full term, and the period of gestation at which labor occurred in the four cases was respectively, seven months, six and a half months, eight and a half months, and eight months. Unfortunately, in these various confinements she was attended, not by a regular physician, but by a midwife, but neither the midwife nor herself ever noticed that there was any diseased condition or peculiar appearance about any of the dead children. The patient has always enjoyed good health; and this is the whole history of the case, with the exception of the fact that she is now four months pregnant again; in consequence of which she applies to us to see if medical science cannot do something to prevent the recurrence of the melancholy termination of gestation, which has hitherto continually marred her married life. This is the problem which we have presented to us to solve, and it is certainly one worthy of our most careful attention.

In the early part of pregnancy there are, setting aside accidents, two great causes which, almost without exception, account for miscarriage. These are syphilis and retroversion or retroflexion of the uterus. For premature labors there are also two prominent causes, viz., syphilis and fatty degeneration of the placenta; the latter occurring without any assignable reason. Laceration of the cervix comes under the category of accidents, and barring out this class, I know of no other cause. In such a case as this, therefore, you should always examine the patient with the greatest care for specific disease. Here, however, the woman has not the slightest indication of any syphilitic trouble about her, and, as far as we are able to make out, the husband also seems entirely free from any such suspicion. The history of these repeated premature labors points plainly, then, to fatty degeneration of the placenta as the cause. We have no means of finding out with absolute certainty at present, as, of course, this could only be demonstrated by a microscopical examination of the placenta; but there is, as we have seen, no other cause, except syphilis, that would satisfactorily account for the history.

If we had found the history or symptoms of syphilis, we would place the patient at once on anti-syphilitic treatment. The method which I prefer in such cases is that by inunction, and the

preparation which I am in the habit of using is the ordinary mercurial ointment, which is to be rubbed now into the axillæ and now into the groins and inner surface of the thighs. The husband should also be put through a regular course of anti-syphilitic treatment if there are any indications of the disease about him.

Fatty degeneration of the placenta, in my experience, occurs without any assignable cause, and usually in women who are apparently in most excellent health. When there is reason to suspect the presence of this condition, there is but one thing that can possibly save the life of the child, and that is the induction of premature labor. In the present instance, therefore, when the child in utero gets past the seventh month, it ought to be delivered at once. In the past only one child out of the four has died as early as six and a half months, and so there is every prospect of saving this one. When there is fatty degeneration of the placenta the mother can tell when the fœtus is about to die on account of the diminished activity of its movements. In about a week from the time this is first noticed the movements will cease altogether, unless labor is brought promptly on in the meanwhile, and the child will have died of apnœa, due to an inadequate supply of oxygen. The induction of premature labor is now no longer a doubtful process but a perfectly certain one, and attended by no more danger than parturition at full term. In fact, there is even somewhat less danger than in normal labor, on account of the smaller size of the child's head. As to the exact time at which labor should be brought on in this case, that must depend somewhat on the condition of the child, as indicated by the fœtal movements. If the child seems to be growing feeble at seven months, I would advise that it should be done then; but if there were no such indications, I would wait till seven and a half months, when the operation should certainly be performed under any circumstances.

The method of inducing premature labor which I now invariably adopt is a very simple, and, at the same time, a perfectly efficient one. The patient is placed across the bed, with the buttocks resting near the edge, and under her is arranged a large piece of rubber or oil-cloth in such a way as to drain into a tub below on the floor. In this tub we put one or two gallons of water of a temperature of 98°. The operator stands between the thighs of the patient, whose knees should be be properly supported, and employing a syringe with a long nozzle, which is carried up as far into the cervical canal as it will go, he keeps up a steady stream directly against the membranes. In the course of ten minutes the os will be the size of a silver half-dollar, and when dilatation to this extent has been accomplished, he is to insert a gum catheter between the membranes and the uterine walls. The patient is then put in bed, and that is all.

It may be asked whether, when there is fatty degeneration of the placenta, there is any kind of medicine which, if given to the mother, is capable of prolonging the child's life. In this condition Sir James Simpson was in the habit of administering chlorate of potash, on account of the large amount of oxygen which it is known to give off when taken into the system and decomposed. There is, at all events, no harm in trying this plan, as the drug can be given in very large doses with impunity. It is perfectly safe to give it in drachm doses; but I would not advise its being carried beyond this. It is well-known that a medical man of this city unfortunately lost his life by taking an ounce of it at once, in order to demonstrate in his own person that no bad effects resulted from its use even in enormous quantities. In some cases that have been under my observation, the drug really seems to have facilitated the process of oxygenating the fœtal blood. It should never, however, be relied upon as a substitute for the induction of premature labor. This operation constitues one of the greatest advances that have ever been made in the obstetric art, and it is certainly no mean triumph to be able thus to preserve a human life which, without its aid, would have been inevitably lost. I can point to at least two dozen children in this city, who by this means were saved from an untimely fate. When the infant has been delivered before full term, it should not be washed and otherwise treated in the ordinary manner of nurses, but should be carefully wrapped in warm cotton and allowed to remain in it; the temperature of the room in the meanwhile being brought up to nearly one hundred degrees.

Chronic Slight Cystic Degeneration of the Ovary.

Our next patient is Mrs. Catharine D———, a native of Ireland, and 28 years of age. She has been married four years, and is sterile. The history which she gives of herself is as follows: For more than three years she has suffered constantly from very severe backache. This backache she also had before her marriage, although it was at that time much less severe. She also suffers very

greatly from dyspareunia, or painful cohabitation; and that is all the history of the case. It is quite enough, however, for the patient; who, although not well before her marriage, has had this constant back-ache, which she represents as most intense, while sexual intercourse is so painful to her that it renders her life wretched.

Before I made a physical examination in this case I expected to find the condition known as vaginismus, or spasm of the vagina; but so far from this, I found that the vulva was quite large and the vagina open. There was, then, nothing wrong about the vagina; but just back of the cervix I found a round, hard mass, which was exceedingly sensitive to the touch, and which, the patient at once stated, was the seat of the intense pain which she felt during intercourse.

I have neglected to mention that the back-ache of which she complains, is always aggravated just before and during menstruation, and she told me also that it was here that this pain, too, was located. The uterus was found to be movable and perfectly normal in every other way.

But why should this sensitive mass behind the uterus render the woman sterile? Because it is the ovary, and in a diseased condition. There can be no question that it is the ovary, for if it were a fibroid it would not be entirely disconnected with the uterus, as this is; and it cannot be a phlegmon, the result of peritoneal inflammation, because it is perfectly movable. A hard mass of fæcal matter in the rectum could not be as sensitive as this body is, and it is not a retroflexed uterus, since the probe shows the position of the uterus to be normal. It is, then, an enlarged and diseased ovary which has fallen down into Douglas's *cul-de-sac;* and there can be little doubt that it is a cystic degeneration of the organ which has caused all the trouble. The sterility is in all probability to be accounted for by the fact that the other ovary is in the same diseased condition; although it still remains in its normal position. In a similar case (with the exception of the sterility, the other ovary probably not being affected in that) in which I removed the enlarged and prolapsed ovary, it was found that the whole organ was full of cysts, the average size of which was about that of a gooseberry.

The diagnosis here is, therefore, chronic slight cystic degeneration of the ovary. I have only one remedy to suggest, and that is the cutting through Douglas's *cul-de-sac* and the removal of the prolapsed ovary. I should then pull the other one down and examine it, and if it were found to be healthy in appearance, push it back again. As I have said, the probabilities are that it is diseased also (on account of the sterility of the patient), and if this were found to be the case, it should, of course, be removed in the same way.

We will thus cure the dyspareunia and the backache; and, as for the sterility, it will not be any more hopeless than it is at present, if both the ovaries are in this condition.

Laceration of the Cervix Uteri and Perineum, with Anteflexion of the Uterus.

Our last patient to-day is Mrs. Elizabeth H., a native of the United States, and 32 years of age. She has been married four years and has had three children. The last was born four years ago, and she has never been pregnant since. When I ask her how long she has been sick, she replies, ever since her last child was born.

As we go on in our course you cannot but be struck with the fact that the affections peculiar to women are very commonly traceable to childbirth. If the patient does not say that her trouble commenced at the time of the birth of her last child, she will be pretty sure to date its origin at the time of her marriage.

There is too often, unfortunately, very good reason for this, as these troubles are exceedingly apt to be due primarily to specific inoculation by gonorrhœa, and that without any special culpability on the part of the husband, who may have supposed himself to be entirely free from the disease for six months before marriage.

The principal symptom of which this patient complains is pain in the back and in the region of the right ovary. She also suffers at times from pain in the head and through the eyes. The menstrual function is performed regularly, and without difficulty, and she says she has no leucorrhœa. She can walk about and stand without suffering, as a rule, but cannot lie on the right side in bed, on account of the pain just mentioned.

The examination *per vaginam* revealed a badly-lacerated cervix. There can scarcely be a doubt that this occurred at the time of the labor four years ago (although the patient says she had no special difficulty then, and was not delivered with instruments), as she has never enjoyed good health since, and has never been pregnant since. But this was not all that I found. The perineum, which had, no doubt, been torn at the same time, was lacking, and the fundus of the uterus, instead of being in its normal position, was found to have fallen forward over the bladder in consequence. Although the patient said

she had no leucorrhœa when questioned on the point, there was found a copious discharge of this character, as one would naturally expect with the condition of the parts that is here present. I might here pause to say that a patient's denial of the fact that she has leucorrhœa is of no value whatever, and should never be trusted. Why women should say they don't have it when they really do, is more than I can tell; but it is a fact that this is not infrequently the case.

At the time of the last labor, then, the cervix was torn, the perineum was lost, and the enlarged and weighty uterus, deprived to a great extent of its natural support, settled forward in its present position. As a result, there followed a chronic state of congestion in the endometrium, which continually pours out an ichorous secretion so acrid as to cause vaginitis. The correct diagnosis is, therefore, as follows:

1. Laceration of the cervix.
2. Rupture of the perinenum.
3. Anteflexion of the uterus.
4. Resulting vaginitis.

This is a well-marked and closely-connected pathological series, and in such cases, where the diagnosis is a somewhat complex one, we should always be very careful to take up the links of the chain in their proper order.

I have but a moment left now for the subject of treatment. Where shall we begin to correct this series of evils which have just been enumerated? The first thing to be done here is to straighten up this anteflexed uterus, and this is not to be accomplished by putting in a pessary, for I do not believe that the patient would at present be able to wear one. The best plan will be to introduce a sound two or three times a week and bend back the uterus, which is perfectly movable. Of course, at first it will always return to the abnormal position to which it has so long been accustomed, but gradually through the agency of this course of gymnastics, as it may be called, the organ will become straighter and straighter, until it has at last resumed its natural position. In the meanwhile, constant treatment by means of hot douches, etc., should be kept up for the relief of the uterine congestion. The next step in the cure will be the closure of the lacerated cervix, and, finally, the restoration of the perineum should be made.

(*To be continued.*)

—In asthmatic affections Prof. Bartholow says the inhalation of iodide of ethyl is of great utility.

Communications.

SOME OF THE COMMON DISORDERS OF INFANCY AND EARLY CHILDHOOD.

BY G. A. HILL, M. D.

(*Continued from page* 166.)

When these conditions are present there is strong presumptive evidence of the near approach of a fit, and if seen at this time by the physician he should promptly seek out the exciting cause, and as promptly remove it. If the gums are swollen and tense they ought at once to be incised, and not only the gum but the peridentine, the tense state of which, from the advancing tooth, may be the real cause of the trouble. Superficial scoring of the congested gum, though offering some relief by the depletion, is not sufficient. Sometimes an emetic given at this time may so relax the system as to avert the spasm, and thus give time for the use of more rational means directed to the causation; indeed, if the fit be imminent, there is scarcely any measure we can rely upon with so much certainty.

If the child is seen during the seizure, nothing will act more satisfactorily in bringing about relaxation and repose than a warm bath up to the neck, or if preferred, the hot pack, assisted by a little chloroform if need be.

After the convulsion has subsided, he will pass into a state of limp lethargy, only to be followed, probably, by others in more or less rapid succession.

Before going further, it should be ascertained, if possible, whether he has been the subject of any recent acute disease, if the stomach and bowels have shown disturbed function, and whether there has been noticed a twitching of the hands and feet for any length of time prior to the first fit. In general it may be stated that a rapid pulse, with slight feverishness, vomiting, and diarrhœa, denote functional or peripheral irritation, and is best met by a mild but brisk cathartic, followed or not by bromide of potassium, belladonna, or assafœtida, to allay reflex nervous irritation. We have in the bromides a powerful remedy for the control of infantile eclampsia, but to be of good service they should be given in relatively large doses, five or six grains of the potassium salt being easily borne by a child a year old. As soon, however, as the physiological effect has become fairly manifest, the dose should be diminished, or the drug discontinued. The indiscriminate use of the bromine salts is as fatal to the

well-being and future development of the child as their judicious employment is beneficial. I have thought sometimes that in this age our little ones are not unfrequently the victims of *fashion* with respect to this drug.

There are many causes of convulsions and conditions favorable to their development which I have not even the space to name. I will mention one, however, as having been given by the older writers, and at least not denied by the author of a recent article. This is the drying up of suppurating surfaces, as sores behind the ears. I confess to be very incredulous on this point; at least I have never hesitated in advising measures for the removal of these annoying and unsightly disfigurements, and have never seen any ill effects therefrom.

Vomiting is another trouble frequently met with even in children otherwise quite healthy. However, as a recurrent symptom in more severe affections, it should occupy our serious attention. It is well known as a precursor of that terrible disease, tubercular meningitis, as also of some exanthems, as scarlatina, etc. When the stomach is overloaded, or has been irritated by undigested food, its evacuation is rather to be considered a fortunate propensity than as a sign of disease; but if this irritability continues, and the child shows signs of exhaustion or inanition, it becomes necessary to interpose medical aid. His food, if the child be fed artificially, must be changed; this change is frequently productive of good results, even when the diet adopted has no special superiority over that laid aside. The little stomach seems grateful for the change, and at once ceases its revolts. For infants a mixture, of equal parts of milk, lime water, and arrow-root water sweetened with a little milk sugar, will scarcely ever irritate the most delicate stomach.

The various diastatic preparations, as the extracts of malt, if added in small quantities to the milk will often be found to exercise a happy effect in facilitating the digestive process. Baby foods without number have been promulgated, some of which possess real merit. My experience with Mellin's and Horlick's infant foods has been most favorable to their strong recommendation. If the digestive powers are much impaired from debility or other cause, pepsin should be given with each feeding.

For excessive irritability and vomiting between meals it is often necessary to resort to medicines; the following combination has succeeded so constantly in my hands that I offer it without apology:

℞. Spt. chloroformi, ℥j.
Creasoti (ligni), ♏ij.
Vini ipecac, ♏v.
Aquæ anisi, q. s. ad. f. ℥ij. M.

Sig.—A teaspoonful for a child a year old.

Closely associated with the above, and depending upon similar causative influences is *colic*, which, though not difficult, generally, to relieve, should not be treated lightly, since from the pain, loss of rest, and other strains upon the nervous system convulsions may supervene.

Usually, to one accustomed to note closely the actions of his little patients, there should be no difficulty in determining in this instance the cause of the distress. In simple, spasmodic colic, the contracted brow and screwed-up mouth, the loud, angry cry, and the hard, nodulated abdomen, are, during the paroxysm, the characteristic symptoms; there is also, I think, a slight elevation of temperature. Sometimes there is diarrhœa, but generally the bowels are costive, with a reversed peristalsis, causing vomiting of bilious matter.

Of course, the first thing is to relieve the pain by anodynes, if it seems violent, for which a mixture in equal parts of those time-honored remedies, elixir paregoric and Hoffman's anodyne, can scarcely be improved upon. After this, a mild cathartic is clearly indicated, or what may be better, if vomiting has commenced, an enema of castor oil. The old plan of giving emetics in such cases, while probably effectual in relieving intestinal spasm, I would consider too prostrating and for this reason do not prescribe them. When there is intestinal dyspepsia, as indicated by milk-curd or other undissolved matter on the napkin, some of the modern digestives, with or without the so-called carminatives, are proper; a little tincture of assafœtida, with the well-known elixir lactopeptine, are excellent for this purpose, especially in very young babies. Attention should likewise be had to the constitution, usually found faulty in these cases, by inaugurating better food, better hygiene, and tonics.

I beg to speak briefly of one other difficulty, which, though not frequently dangerous, is very annoying to both infant and parent, and occasionally so distressing as to seriously compromise the health of the little victim. I allude to *excoriations*. Improper dressing, want of strict cleanliness, diarrhœic or acid stools, excessive delicacy of the skin, and unwholesome food, are the common causes of this affection. By this constant peripheral irritation the child becomes extremely nervous, starting and crying in his sleep, restless and petulant, and in other ways showing a

highly perturbed nervous state. Should these things continue, local nutrition may become so modified as to cause the abrasions to take on unhealthy action, and may even degenerate into sores, having no tendency to heal spontaneously. By removing probable causes, giving alkaline laxatives or correctives, improving nutrition, and the use of appropriate local measures, there is usually no difficulty in curing the trouble. Locally, I have found equal parts of rice flour and subnitrate of bismuth, with a little morphia, to answer well. Oleate of zinc may take the place of the bismuth. Soap and water should also have an honored place among the best of local remedies.

A CASE OF PUERPERAL FEVER DUE TO AUTO-INFECTION.*

BY L. N. DAVIS, M. D.,

Of Farmland, Ind.

September 8, 1884, at 7 a. m., saw, with Dr. K., Mrs. C., aged 28 years, in her first confinement. She had a miscarriage about two years ago, since which time she has been more or less bloated, troubled with indigestion and frequent pains in the pit of the stomach, attended at times with burning sensation. Digestive disturbance, however, has never seriously interfered with her appetite or nutrition; nor has she suffered sufficiently at any time to seriously molest her in the discharge of her ordinary household duties. Found much œdema of the face, as well as of the upper and lower extremities. Has been in labor for five or six hours, and seems very apprehensive as to the result. Pains seem rather "niggling," as the old English nurses would put it, and not very effective in furthering labor, but rather adding to her general distress, in the shape of dyspnœa, headache, and nausea. Examination revealed os considerably dilated, waters discharged, and a breech presentation, with hips slightly engaged in the superior strait. Suspecting albuminuria, with impending eclampsia, we gave a small dose of morphia, and succeeded it with an occasional dose of chloral and bromide of potash, for the purpose of improving the pains, as well as allaying the nervous perturbation. Assuring the doctor that there would not likely be any obstacle to the natural delivery of the woman, I left in discharge of my routine duties. Later in the day, on account of increased alarm, Dr. R. was called to the assistance of Dr. K. Labor was terminated by the natural efforts about 9 p. m., in the hands of Dr. R., with a still-born child of medium size.

I heard nothing more from the case for four or five days, when Dr. K. invited me to see it again. Has had one or two chills; has loss of appetite, with nausea and vomiting; slight looseness of the bowels, discharges dark and offensive; retention and almost suppression of the urine, not exceeding two ounces being secreted in the past twenty-four hours; of very dark color and heavily charged with albumen. Complains of lancinating pains from pit of the stomach through to the shoulder blades; also pains of less intensity over the entire abdomen; lochial discharge about normal in quantity; lacteal secretion very scanty; dark red flush on the cheeks, and whitish-yellow fur on the tongue. Bowels tympanitic, with diffused tenderness. Pulse, 100; temperature, 104; respiration, 32. She was given mucilaginous drinks, light doses of aconite and digitalis, and fomentations containing digitalis were applied to the loins. Under this treatment, the urine increased to quite the normal quantity, but still requires the catheter for removal.

Improvement in all other respects also followed in a few days, except in the condition of the stomach, the functions of this organ seeming to grow worse, if any difference; increased difficulty in retaining nourishment, with frequent eructations of bile mixed with mucus and blood, occasionally becoming dark and assuming the "coffee-ground" appearance. Diarrhœa and constipation alternating, but neither being characteristic features of the case. Discharges from bowels evidently contain blood in small quantity. Vaginal washes have been used, though not assiduously. We now ascertained that there was marked laceration of the perineum.

At this juncture Dr. R. was again called in to see the case, and soon assumed regal sway, for he was little opposed, presuming, as we did, that he was looked to as the medical director. He seemed to be infused with but few modern medical ideas, and none more than the "specific medication" phantasy. He declared that several agents were indicated by the peculiar shape, color, and secretion of the tongue, but more than all else the specific tincture of "apis." As he seemed to have a penchant to prescribe for the tongue, and we, the patient, concord of sentiment was out of the question, and was only apparently maintained to preserve the decorum of the sick-room, which I hold to be of paramount importance to all technicalities in similar cases.

Later in the case (I learned), during a term of

*Read before the Delaware District Medical Society.

constipation, he conceived the idea that the tongue indicated colocynth, and none of the fluid extract being obtainable, he told his druggist that fluid extract of colchicum was tantamount to colocynth, and therefore he would administer the colchicum. Two or more five-drop doses of the fluid extract of colchicum were given in this critical case of septicæmia and uræmia, with ulceration of the stomach existing as a local admonition to stay medication and give the organ a little much needed repose; given at a time when a straw in the path might decide the fate of the patient. Whether it had any unfavorable effect on the case or not, I am unable to say, but certainly it was contraindicated by any line of logic which we usually apply in such cases.

It will be clearly understood, from the details of the above case, that it was wholly due to intrinsic causes; and yet it was none the less a typical case of so-called child-bed fever. I have not the *least* doubt that more than one cause entered into its composition, namely, the pre-disposing cause consisting of albuminuria, with all that it involves, and gastric ulcer; the exciting cause being septic poison induced by *auto-infection*. That any one of the causes would have been sufficient, with the ordeal of confinement, to have developed a full-fledged case of puerperal septicæmia, I have my most serious doubts; all taken together, it was inevitable. I have no hesitation in excluding, as a possible cause, contagion or infection arising from any source, that, mayhap, the poison of child-bed fever could issue, external to the body of our patient: Because 1, child-bed fever, of whatever origin, is of very rare occurrence in this section; never, indeed, did it prevail epidemically in the history of the country; hence it could not have been due to a special germ, like zymotic fevers, as claimed by Fordyce Barker, and other eminent authorities; neither do I believe that puerperal fever, as the term is generally used, *has a special cause*. Because 2, if child-bed fever owes its origin to the causes of surgical septicæmia in general, as claimed by Burdon-Sanderson, then it must have had its origin within the patient, for no surgical or other cases existed, from which such poison could have been transmitted. Because 3, if child-bed fever be due, in any case, to infection from other zymotic diseases, as admitted by most of European authorities, and as I verily believe to be true, ours could not have had such cause—for no scarlatina, diphtheria, measles, or other zymotic fever prevailed.

The post-mortem appearances of subjects of puerperal fever seem to be in nowise constant. In some of the most intense and malignant cases, indeed, the pathology is entirely wanting; while in others of a less severe type, it varies from a local inflammation of the peritoneum to the involvement of almost every organ and tissue of the body. Why then should we record all cases of childbed fever as of similar origin? It seems to me that nothing could be more derogatory to our common sense. And yet it is obvious that many authorities contend for a special cause to the exclusion of all others. If they could but take a broader and more liberal view of the etiology of diseases in general, but more especially this one, less confusion would certainly prevail in the medical world, and more accurate and careful observation would be made. In this view I hope I am not pessimistic, neither do I claim to be optimistic. But of one thing I feel sure; and that is, if we rely upon a few men to make observations for us, we will always be in ignorance and confusion. Medicine is not so much of a science that it can be solved to a mathematical certainty. Every physician, to a certain extent, must make his own observations and collect his own data; for according to his capacity, facilities, and habits of industry, he is authority on the many unsolved problems of medicine.

If Mrs. C. had not been a sufferer from chronic Bright's disease, she would perhaps have escaped septicæmia; if septicæmia had not originated, I have but little doubt that she would have gotten through her confinement with the nephritic disorder and gastric ulcer. All physicians whose observations have extended over many years will concur, that the tendency to child-bed fever, as well as other serious complications, is very great in cases of confinement coëxistent with albuminuria; and that it is only with the most careful attention that many such cases escape with their lives.

In the cases of albuminuria in which child-bed fever has supervened that have come under my notice, I have had but little doubt that self-infection, as in the above case, from lacerated perineum or cervix, constituted a prominent factor in the causation.

In conclusion, I feel warranted in saying that the cases constituting the class of disease called puerperal fever do not owe their origin to one, but many causes, and only deserve a special name to designate a class into which almost any case of fever succeeding confinement may be placed. It would certainly be a wise and happy hit if the term, as it is generally used, could be expunged from our text-books. It does not imply a special train of symptoms, call for a special line of treat-

ment, involve a definite cause, or necessitate a peculiar pathological condition; hence the only propriety that can be claimed for its use, is that it denotes a fever during the lying-in state. It is quite true and reasonable that two fevers of adverse nature, occurring at such a time, may, and will, assume symptoms in common, and that both will present symptoms peculiar to the puerperal state; and, further, that they may be so nearly identical as to render it entirely impossible to distinguish between them. I can easily understand how almost any fever occurring during the lying-in state may be diverted from its regular course, and obscured by local and general symptoms peculiar to the state of the patient, to such an extent as to lose, not only its identity, but its pathological expression as well. I sincerely believe that child-bed fever may have the same identical cause as surgical septicæmia, phlegmonous erysipelas, scarlatina, diphtheria, and doubtless, also, as measles, typhus and typhoid fevers. Other causes are also quite possible, in my mind; but the causes to which we can most frequently attribute our cases through the country are those of predisposition and auto-infection.

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

BY WILLIAM GOODELL, M. D.,

Professor of Gynæcology in the University of Pennsylvania.

Reported by William H. Morrison, M. D.

Multiple Fibroid Tumors, Removal by Abdominal Section; Recovery—Oophorectomy—Injury to the Urethra, the Result of Dilatation—Vesico-vaginal Fistula—Operation.

Gentlemen: To-day I shall occupy the hour in showing you the results of some of the operations which have recently been performed.

The first case which I shall have brought in is the woman from whom the multiple fibroid tumor that I now show you was removed. After removal this growth weighed thirteen and a half pounds. It undoubtedly weighed more, for a large portion of the blood which it had contained had escaped. You see what a conglomeration of tumors it is. The operation was performed about three weeks ago. Only on one occasion was the temperature above 100°, and that was on the day following the operation. The tumors were firmly attached to the intestines and the wall of the abdomen, requiring dissection with the knife. The pedicle of the tumor was as large as my arm below the biceps. This was encircled at first with the ordinary ecraseur, which was drawn as tight as possible without cutting the tissue. A smaller wire ecraseur was then passed and allowed to remain, the pedicle being transfixed with wires. It was sixteen days before the clamp came away. A deep cavity was left in the wall of the abdomen.

The removal of fibroid tumors has been a most fatal operation, but with the modern methods of operation, the success has been greater. Dr. Keith, of Edinburgh, and Dr. Bantling, of London, have been extremely successful with this operation. In this country the results have not been so good. Why this is I am not prepared to say, for all the details of antiseptic surgery have been adhered to.

In the present case the ovaries and the womb were also removed, the wire ecraseur being placed low down on what should have been the cervix of the womb, but which was enlarged to the size of the arm. For the first week, the odor from the stump was pretty bad, and poisoned the room in spite of all that could be done. The part was kept clean, and dressed with salicylate of sodium.

Although fibroid tumors of the uterus are very common, it is fortunately rare that the operation is required. Usually the affection shows itself late in life, and we are able to control the bleeding until the occurrence of the menopause, which in these cases does not come on until a later age than usual (about fifty). To control the disease, we administer chloride of ammonium, ergot, and remedies intended to increase the richness of the blood. Sometimes iron does good, while at other times it increases the loss of blood. By these measures the patient can usually be tided over the period until the change of life occurs. After this time, the tumors rarely increase in size, but one of two things occurs—they either remain stationary or diminish in size.

One word about the expression of the face in uterine and ovarian disease. This woman had the facies uterinæ well-marked. In cases of abdominal tumors, there are two, or we may say three, expressions of countenance. In fibroid tumor of the womb, there is a peculiar, anxious expression of countenance, and also a marked discoloration of the face, which becomes dark. There is a deposit of pigment which is almost pathognomonic. In ovarian tumors, there is great emaciation, especially if the disease is advanced. This is not present in uterine fibroid, even if the patient has lost a great deal of blood. There is also in ovarian tumor an anxious expression of countenance, to which the name facies ovarianæ has been given. We may see a third expression of countenance in parovarian tumors which is almost that of health.

Oophorectomy.

This case I also operated on three weeks ago. She is 37 years of age. Six years ago she gave birth to a child. From her history, I infer that at that time she met with two accidents. Shortly afterwards she found that the menses were becoming menorrhagic, and for a week before menstruating she had difficulty in locomotion, with intense bearing-down feelings. She was in a fair condition of health for only one week out of four. She consulted an excellent gentleman in San Francisco, who recognized a laceration of the cervix, which he repaired. This gave no benefit, and she consulted another surgeon, who, finding a tear of the perineum, operated on that. This

did no good. Pessaries of all kinds have been used, but did not influence the bearing-down feeling. She went from bad to worse, and being in poor circumstances and dependent on her friends, she came to me to see if something could not be done for her relief.

She was very pale and thin, and unable to do any work. On examining, I found that the ovaries were excessively tender, and that one was prolapsed and enlarged. Where there is passive congestion of the pelvic organs continuing for any length of time, it may become formative in its character, and instead of a simple congestion, structural changes in the ovaries are produced. In such cases the condition can not be cured until the occurrence of the change of life. There are two forms of degeneration of the ovaries, viz., the parenchymatous and the cystic. The latter may produce ovarian cysts, although I am not prepared to say that such is the case.

Having seen the good results which sometimes follow in these cases under the rest treatment, with electricity, forced feeding, and so on, I did not feel warranted in operating until this had been tried. She was placed in the Orthopœdic Hospital. She returned unimproved, and I decided to remove the ovaries. I operated three weeks ago to-morrow. There was cystic disease of both ovaries. She recovered from the operation without a single bad symptom. There was no elevation of temperature. At no time did it go above 100°. The only trouble resulted from drawing the water. This induced great irritability of the bladder. This was treated with a remedy which is almost a specific in these attacks of irritable bladder, that is a suppository consisting of one grain of the aqueous extract of opium, with from a half to one grain of extract of belladonna. It is necessary to feel the way with the belladonna. These patients will always bear one grain of the extract of opium. The wound healed by first intention from one end to the other. There was not a drop of pus. I believe that we are going to give her a new life, and that as soon as her appetite returns and she picks up in flesh, she will be a well woman, and that the bearing-down feeling will never return.

One word in regard to the operation. It is not an easy one to perform, especially if the woman is fat. When there is a tumor of any size, the tumor comes directly against the abdominal wall, and there is little danger of intestine intervening. In this instance, the intestine came directly against the abdominal wall. Under such circumstances, it requires very careful cutting to open the peritoneum without injuring the in-bowel. After cutting through the outer tissues and controlling the hemorrhage, I catch the peritoneum with a tenaculum, taking the smallest possible hold, and then draw it up so as to be sure to raise it from any intestine that may be underneath. Having done this, I make a delicate nick, and then introduce a director and enlarge the opening. Another difficulty of this operation is that the opening is very small, admitting of the entrance of no more than two fingers. The fingers are passed to the womb and then run along the broad ligament until the ovary is reached. The ovary is then seized with forceps and an attempt made to drag it out. If there are adhesions, the difficulties are still further increased. In such cases, it is a hard matter to get pedicle enough and to be sure that all the ovary has been removed. I believe that in many instances in which the ovaries have been supposed to have been removed, that a portion has been left behind, thus accounting for the continuance of menstruation in a few cases. In only one of the cases in which I have removed both ovaries has there been any return of menstruation. That occurred three years ago. I am sure that I removed both ovaries. There may be a third ovary or supplemental ovarian tissue. Nodules of ovarian tissue have been found at a distance from the ovaries. To show you how small a portion of ovarian structure will keep up menstruation, let me relate the following case:

Some years ago, I removed the ovaries per vaginam (and this, by the way, was one of the reasons why I gave up this operation). I removed one ovary without any difficulty, and caught the second ovary with fenestrated forceps, but in pulling it down, the tissue tore, and a large portion came away, but some remained behind. From an examination of the piece removed it was evident that the portion left must be very small. The operation was done for menorrhagia and masturbation, but it did not give entire relief. She finally became so disgusted with herself that she desired me to perform abdominal section. I did so, and found that the portion of tissue left behind was not larger than a bean. That little fragment kept up the profuse menstruation. I am sorry to say that the operation resulted fatally.

To return to the operation: after getting the ovaries out, it is necessary to watch the pulse as you tie the pedicles, for pressure on the ovarian nerves may cause collapse. The pedicle is transfixed with a double thread, and tied in two portions. The ovary is then cut off, and the pedicle carefully examined, to see if all has been removed. When the ovaries are bound down by adhesions it is difficult to get at them, for the opening is small, and the recti muscles become very tense. I look upon this operation as far more difficult than the removal of an ovarian tumor.

Incontinence of Urine Due to Injury to the Urethra. Vesico-vaginal Fistula Operation.

The next case is the one on which I operated last week. As you will remember, the woman had suffered from cystitis, and dilatation of the urethra had been practiced. She states that two fingers were introduced into the canal. Dilatation not being successful, a vesico-vaginal fistula was made. This relieved her very much, but when the opening began to close the old symptoms returned. She then came to me. I made the fistula larger, and syringed out the bladder with a solution of strong nitrate of silver. This cured the inflammation, and I closed up the fistula. She then found that she had no control over the urethra, which had been torn in the operation of dilatation. Two weeks ago I operated on the urethra, but at the same time I told the patient that I feared that the operation would not be a complete success. I was sure that I should

obtain union, but I was not so sure of giving her control over the urethra. The union has been perfect, but there is still constant dribbling. This urethra is not too large, and indeed it is smaller than the average.

Examining the cicatrix of the old vesico-vaginal fistula, I have made a discovery. There is still a small opening there. I shall therefore close up that opening. It may be that all the trouble has come from this, but the patient thought that it came from the urethra. In operating on these small fistulæ a larger opening has to be made. I make an incision on each side, and try to denude the surface without cutting into the bladder. After that operation it has been customary to introduce a catheter, but I shall not do so. I have given up the use of catheters when the opening is close to the urethra, for it is sure to impinge on the part, and is liable to prevent union. Sometimes these fistulæ may be closed by touching them with Paquelin's cautery, but this is not so sure as the cutting operation, for these small openings are sometimes very difficult to close. For closing the opening, I use the finest wire compatible with strength, for the thicker the wire the more liable it is to ulcerate its way through. I enter the needle one-third of an inch from the margin of the wound, try to avoid entering the bladder, and bring it out at a corresponding point on the opposite side. This small opening, which is not large enough to admit a probe, will require two stitches to bring it together. I hardly think that this opening was large enough to account for the free flow of urine from which the patient suffered. The patient will be kept in bed and the sutures removed in ten days or two weeks. Before slipping the shot down over the wire and clamping the sutures, I have some water thrown in to wash away the clots and blood. Securing the stitches brings the edges of the wound into complete apposition.

This condition used to be the opprobrium of surgery. I cannot tell you why it is that we are more successful now than formerly. It is supposed by some that it is because we use silver wire, but one of the best German operators, Simon, of Heidelberg, uses silk. It used to be that when a surgeon had a successful case of operation on vesico-vaginal fistula, he at once sent an account to the journals; but now, success is the rule.

The former practice was to always insert a self-retaining catheter. I have had three cases in which union was undoubtedly prevented by the catheter. One was operated on three times by an excellent surgeon, and each time the fistula failed to unite. The fourth time, I operated and the same thing happened. At the fifth operation, I made up my mind that I should operate without the catheter. That operation was a success. I had another case which had been operated on a number of times by a good surgeon. Finally, she came into my hands, and I operated with the catheter, and the operation failed. Tnere was some uterine tenesmus. I again operated, discarding the catheter, and the operation succeded. I had still another case which had been operated on a number of times by another surgeon. The opening was near the neck of the bladder, and when I operated, I omitted the use of the catheter, and the fistula healed.

In the present case, I operated on the urethra last week, making the orifice smaller. I did not use a catheter, and union has been perfect. When the fistula is higher up, there is not so much danger from the use of the catheter, but even then, as the fistula is always between the cervix and the bladder, there is always a risk that a self-retaining catheter will impinge on the wound and prevent union, as the bladder is always contracted.

[Note.—This patient left the hospital greatly improved.]

Medical Societies.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting, November 28, 1884, the President, Dr. Henry Beates, jr., in the chair, Dr. Massey, secretary.

Dr. John B. Roberts read the following paper on

"NOTES ON SOME INSTRUCTIVE CASES OF HERNIA."

Hernia is a condition often seen and often improperly treated; therefore, I shall not apologize for bringing a few illustrative cases to the attention of the society, in the hope of stimulating discussion on this important topic.

Reduction of an Irreducible Femoral Hernia of Seven Years' Standing.

Some months ago a woman was sent to me by a medical friend in a neighboring State, suffering with a small, painful tumor in the right groin, which had appeared seven years previously, while she was lifting a heavy weight. The tumor had never been "pushed back," and had of late increased somewhat in size. For its treatment she had recently bought a truss, but could not wear it. When seen by me the hernia was the size of a small hen's egg, was somewhat painful when handled, and occupied the situation of the femoral ring. The truss she brought with her was one for inguinal hernia, and gave pain by pressing on the tumor. After reduction of the hernia was accomplished I found, as was to be expected, that the truss pad did not cover the opening through which the hernia escaped.

I placed her in the recumbent position, in my office, and without difficulty succeeded in reducing the entire hernial protrusion by first pulling the tumor downward, in a direction toward the knee, and then pushing backward, toward the bed. No anæsthesia was employed. A truss made with an inguinal hernia pad and a band passing around the perineum from the pad to the back of the truss-spring seemed to retain the intestine securely within the abdomen. As the patient has not applied for further treatment, I presume that she has had no special inconvenience since.

It certainly is strange that a hernia which had never been returned since its appearance seven years previously should be so readily reduced. Attempts to reduce it had, according to her statement, been previously made, but I know not how often. After I replaced the gut, which I did several times during her stay in the city, I could put the tip of my finger into the femoral ring, thus

showing that the reduction was complete. I am inclined to believe that she had a small, direct inguinal hernia in addition to the femoral hernia, for, after reducing the femoral hernia, which caused the main bulk of the tumor, a small tumefaction was still left, which could be made to disappear by pressure toward the external inguinal ring. On the other hand, I thought I was able to push back this upper part of the mass and hold my finger in the inguinal ring, without affecting the femoral hernia which certainly existed below.

This occurrence of double hernia on the same side is often, I think, overlooked in hurried examinations.

Irreducible Incomplete Hernia.

A man of seventy-seven years, who had a reducible hernia of the right side, sent for surgical aid because he noticed a small swelling in the left groin, which he could not reduce. He told me that he formerly had left side hernia, but had been cured by wearing a truss. He was anxious, because the right hernia had once become strangulated and required manipulation by a physician to reduce it. I saw him late in the afternoon. He lay in bed, with slight abdominal uneasiness, but had had no vomiting, and during the day had had an evacuation of the bowels. The abdominal wall was thin, and above Poupart's ligament on the left side I could feel within the wall a tumor the size of a small black walnut. On coughing, distinct succussion was felt in the tumor, which protruded little or none through the external inguinal ring. The tumor, which was tympanitic, was evidently an oblique inguinal hernia, which had not traversed the entire length of the inguinal canal.

Under ether I attempted taxis, but, though I heard some gurgling in the belly during my manipulations, I felt no distinct slipping of the hernia into the abdominal cavity. The tumor, however, seemed smaller, and by invaginating the scrotum I could introduce my finger half way up the inguinal canal. I concluded that he had previously had a small, incomplete hernia, which had passed unnoticed; and that a sudden increase, with some attending pain, had called his attention to the groin on this occasion.

Accordingly, I prescribed a little morphia and recommended quiet in bed. When I visited him next day, the tumor was entirely gone; and he reported that, shortly after his recovery from ether, pressure by his own fingers easily caused the protrusion to disappear. Some tenderness still remained. He was told to stay in bed two days and then obtain a truss. I have not seen him since.

Recovery from Strangulated Hernia After Refusal of Operation.

Two or three years ago Dr. J. M. DaCosta requested me to see a man who had had left-side hernia for about four years, which was now, and had been for many months, irreducible. For two days and a half the patient had had no stool and had been complaining of pain referable to the hernial and to the umbilical region. Dr. DaCosta had attempted taxis, but failing, had given castor oil, which was vomited without inducing an action from the rectum. An enema was ordered and a subcutaneous injection of morphia given; after which he called me to meet him in consultation. When we saw the patient, he complained of no pain. I was not able to get any accurate history of the case from the man himself or his family, but he had a hernia the size of a black walnut, elongated horizontally, lying apparently below Poupart's ligament. I was unable to determine to my satisfaction whether it was a direct inguinal or a femoral hernia. Taxis under ether failed to reduce the hernia, and as herniotomy, though strongly urged by Dr. DaCosta and myself, was refused, opium and belladonna were administered and ice applied to the tumor.

I did not see the patient again, but was informed, two days later, that abdominal tenderness was somewhat more marked, though there was no pain except on pressure. No action of the bowels had occurred. When I saw the attending physician several weeks after, he said the patient had recovered without showing any further unfavorable symptoms. The hernial tumor, of course, remained.

In this instance the unfavorable prognosis made by me was unsustained by the history of the case. Whether strangulation of a small portion of an old hernia was relieved by the manipulative efforts made by Dr. DaCosta before my visit, or by our joint action, or whether actual strangulation never existed, I was unable to determine. The history, indefinite as it was, and the symptoms, justified resort to operation, because of the well known danger of operative delay in strangulated hernia. In all similar cases I should still advocate exploratory incision.

Herniotomy for Strangulated Femoral Hernia in a Paralytic.

A feeble woman, aged about sixty years, and almost helpless from cerebro-spinal sclerosis, had had for many years hernia in both groins, and wore a truss. The daughter, who had to feed the patient and wait upon her, on account of her paralytic condition, was able to reduce the hernial protrusions when they appeared. On August 18, 1882, at 9 a. m., the hernia at the right femoral ring became irreducible after protrusion. The bowels were opened during the day, and there was nausea, but no vomiting. She seemed, when seen in the evening, to have considerable abdominal pain, but her mental condition and inability to articulate plainly made the obtaining of an accurate history difficult. The tumor, which was the size of a very small apple, was firmly fixed and could not be reduced. After futile efforts at reduction, under ether, I made, about eleven hours after strangulation, an incision, and tore through the coverings with forceps and fingers until I reached the sac. Then I stretched Gimbernat's ligament by forcing my finger tip into the canal, but the hernia was still irreducible, showing that the constriction was probably in the neck of the sac. After sweeping my finger around the neck of the sac and detaching it from the surrounding tissues, I was able to overcome the obstruction to replacement, and easily pushed the gut into the abdominal cavity. The sac was, as is seen, not opened. I believe that I stretched or pulled apart some pleatings or folds at the neck

of the sac, and thus liberated the intestine. After pushing the sac also back into the abdomen, the wound was washed with carbolized water and sutures applied. One of the sutures was a very deep one. No ligatures were needed. The wound healed promptly, with but a single drop of pus. The patient's return to her usual condition was delayed, however, by the occurrence of troublesome diarrhœa.

About eighteen months afterward I saw her. There was then a small hernia at the old site, for which she wore a truss. On the left side I found that the hernial tumor then existing consisted of a large inguinal and a small femoral protrusion. She wore a truss for this tumor, but it did not retain the intestine within the abdomen; but her inability to walk, because of her paralytic state, rendered the wearing of a truss not so essential as in an active person.

I might report other cases of hernia in which I have seen more or less unusual features; for example, a case of herniotomy in a child of six weeks, which I recently saw in consultation with Dr. Steinbach, who operated; or that of a woman with exceedingly large inguinal hernia; but for my purpose of exciting discussion, the cases reported will be sufficient.

I desire to emphasize the following points:

That inguinal and femoral hernia will be found at the same time on the same side much oftener than is supposed.

That it is safer to operate in cases of suspected strangulation than to postpone operation beyond twelve hours.

That herniotomy is attended with little hæmorrhage, and if done antiseptically, is accompanied by rapid union and little risk to life.

DISCUSSION ON DR. ROBERTS'S PAPER.

Prof. James B. Walker: "In connection with Dr. Roberts's paper, a brief narration of the salient points of the following cases may be of interest:

"Case 1. A lady aged 79, as the result of a fall, noticed a swelling in the left groin below Poupart's ligament, in vicinity of the femoral ring. The tumor soon occasioned marked disturbance. It was of doughy consistency, and cough failed to impart succussion. Percussson did not elicit a tympanitic note, and taxis failed to reduce it. As there was a doubt of its real nature, anæsthesia was produced with ether, and still taxis failed. The existence of symptoms of strangulation, viz: constipation, nausea, and vomiting, determined operative procedure, when an entero-epiplocele was disclosed. The omental element was the greater, and enclosed a small knuckle of gangrenous intestine; this constituent of the tumor was so small that the ordinary symptoms of succussion and tympany were rendered nondetectable. Hot water failed to develop manifestations of vitality, so the section of intestine was excised and the healthy ends stitched together. Suppression of urine followed the operation, and death resulted on the third day.

"Case 2 was an instance of inguinal hernia in a female advanced in years. Efforts at reduction by a number of physicians had failed. Notwithstanding the length of time intervening, I, however, by properly applying taxis, succeeded in reducing the tumor. The probable cause of failure on the part of other attendants was improper attempts at taxis. The mass pressed out over the ring in a manner to defeat their object. This is, in a majority of instances, the undoubted cause of failure in efforts at reduction.

"Case 3. A male, with complete right inguinal hernia—strangulated. Taxis failing, an operation was resorted to, but the case terminated fatally. The peculiarity consisted in a deposit of fibrin or lymph nearly two inches in thickness, surrounding the external ring.

"Case 4. A gentleman, whose vocation required at times heavy lifting, complained of a peculiar burning or stinging pain, limited to the right inguinal region, There was no perceptible tumor. The symptoms were invariably aggravated by physical effort. I diagnosticated incipient inguinal hernia, and advised a truss. The patient being dissatisfied, consulted an irregular physician, who ridiculed the diagnosis given, and administered homeopathic powders for nearly four weeks, with, of course, no result. By this time the hernia was protruded and unmistakable. The patient now wears a proper truss, and is practically well.

"In reference to umbilical hernia, I wish to call attention to the fact that the umbilical opening is comparable to the cranial fontanelles, in that, like the latter, it gradually closes with advancing age. Basing my plan of treatment on this physiological fact, I support the abdominal walls with a broad adhesive strip so applied as to approximate the umbilical region. To the umbilicus I adjust a compress *smaller* than the opening. This prevents protrusion without interfering with the closing process."

Dr. I. G. Heilman narrated the history of an aged colored man who suffered from an inguinal hernia which became strangulated. Anæsthesia with chloroform did not render reduction practicable. Drs. E. R. Stowe and L. B. Hall were called in, and, at the suggestion of the former, about a fluid ounce of a straw-colored fluid was evacuated from the sac by means of an ordinary hypodermatic needle. After this procedure, the hernia was easily reduced, and a favorable result followed.

Dr. L. Brewer Hall directed attention to the high prices asked by instrument makers for trusses, and inquired if there was any way by which the poor could get them at more reasonable rates.

Dr. Walker, in reply to Dr. Hall, explained how a ten-dollar truss could be obtained from a Chestnut street dealer, under such circumstances, for seven dollars.

Dr. Roberts, in closing the discussion, said: "In my opinion, the mortality in cases of hernia is due to two causes—first, too great an effort at taxis, whereby inflammatory changes are occasioned, and surgical treatment complicated and endangered; second, delay. If *gentle* taxis fails, herniotomy should promptly be performed. The conditions of delay and experimental manipulation by students at hospitals render hospital statistics of little value.

In one case of double hernia—*i. e.*, an inguinal and femoral hernia on the *same side*, I succeeded in maintaining them in place by an inguinal truss

so depressed as to occlude both the external abdominal ring and the femoral ring. In umbilical hernia, I apply a compress moulded of wax instead of the coin. It is more readily adapted to the size of the orifice, and kept in close apposition."

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(*Concluded from page* 174.)

Case 3. Died in the Philadelphia Hospital, and the notes upon the case have been furnished me by Dr. Mary Farnham, resident physician.

A. J., æt. 50, nurse, weight, 150. Medium height, well nourished. Habits at times intemperate. For three weeks suffered from slight bronchitis though quite able to attend to work. October 24. 3 a. m. patient had a severe chill, accompanied by intense pain in the chest, left side, back, and limbs. Chill lasted an hour. At 8 a. m. was bathed in perspiration, surface livid, breathing difficult and painful: dullness on both sides, fine moist rales heard over both lungs. No valvular heart disease, but heart beat feeble. Œdema increased from hour to hour; at 2 p. m. free pinky serous exudation began to ooze from the mouth; at 4 p. m. lost consciousness; and at 6 p. m. died, cyanosed. On autopsy the only lesion discovered was intense congestion of the lungs.

In both these cases the history of previous alcoholic indulgence was supposed to be predisposing cause of the vaso-motor lesion, although the patients did not enter the hospital as subjects of alcoholism.

Case 4. Occurred in the practice of Dr. Whelen. The patient was a respectable married woman, who had been confined within two months of date of these symptoms. She was supposed to be in good health, and attended to her domestic duties as usual on the day of her death. At 10:30 Dr. W. was called to see her, and found her livid, with intense orthopnœa, unable to lie down, and a physical examination showed extreme pulmonary congestion of both lungs, with numerous rales. The patient expired at 12:30, within three hours of having been taken ill. Autopsy revealed only the signs of pulmonary congestion, without a hint as to a primary cause. I incline to think that in this case the neurility of the vaso-motor system had been reduced by lactation.

I pause at this point to observe that it is important to connect with the vaso-motor system instances of pulmonary congestion occurring in elderly persons with feeble hearts, but without sufficiently serious valvular disease, or degeneration of the heart to quite account for the symptoms. The treatment in these latter cases should be rather a general treatment by hygiene and tonics, than by directly treating the heart, which may be only secondarily responsible.

Digitalis is not so useful as a cardiac stimulant, possibly because it affects the heart too positively before the vaso-motor system is sufficiently acted upon. Indeed, the vaso-motor effect of digitalis may be absent when the action upon the cardiac muscle is decided. I allude to my observation of this clinical fact, because I am aware that recently it has been asserted that digitalis possesses a predominant action upon the vaso-motor system. I desire, however, to recur again to this subject.

Naturally, the vaso-motor derangement in Graves' disease suggests itself in this connection. The disease, as is well known, is characterized by the association of symptoms connected with the heart, thyroid gland, and eyeball.

The clinical fact which I desire to recall at this point is that the phenomena of Graves' disease illustrate the extreme susceptibility of the vaso-motor system to exciting causes, since the typical features of the disease are markedly increased at the menstrual period or during sudden emotional excitement.

In the Philadelphia Hospital, in the opposite bed to that occupied by the patient of Dr. Curtin's already mentioned, was a case of Graves' disease almost convalescent. The subject was so much excited by the unlooked-for death of his fellow patient that almost immediately the entire series of symptoms of thyroid enlargement, exophthalmos, and cardiac palpitation, reappeared.

Finally, in the recital of these cases which form the basis of this paper, the object in view is to call attention to the importance of recognizing the vaso-motor agencies operative in disease, and to indicate a plausible explanation of certain cases of anasarca. And in addition to present certain cases of pulmonary congestion due to vaso-motor weakness in the absence of the usual causes of the same.

Treatment.—In the treatment of vaso-motor dropsy it must be remembered that absorption of fluid from the tissues, like its exudation into them, is probably greatly controlled by the central nervous system. Dr. Brunton cites the experiments of Goltze and Nasse, in which the former found that when fluid was injected under the skin of the back of a frog it was rapidly absorbed, so long as the brain and spinal-cord were uninjured, but when these were destroyed little or no absorption took place.

Physiologically, absorption is under the influence of nerve-centres; therefore stimulation of these centres will increase their physiological functions. Stimulation of a sensory nerve is capable of inducing contraction of the entire vaso-motor system, and Nasse has proved that similar irritation will increase absorption.

Strychnia, digitalis, ergot, iron, and zinc, are capable of special impression upon the vaso-motor system, and these drugs are the chief agents with which to combat vaso motor forms of dropsy. Special diuretics may be used as adjuvants in grave cases, but never to the exclusion of the former.

In cases of vaso-motor paresis associated with cardiac palpitation, and other phenomena similar to those seen in Graves' disease, the use of the bromides should be condemned. When vaso-motor dropsy is extensive, agents which stimulate the functions of the skin may also be employed, and cardiac stimulants may be indispensable.

In the vaso-motor paresis associated with more or less pulmonary congestion and œdema, signal benefit has resulted from the liberal use of strychnia and atropia, by the mouth or by hypodermic injection; strychnia by its action as a respiratory stimulant aids in thoroughly oxygenating the blood, and thus promotes the efficiency of the circulation.

But it also acts not only on the dominant vaso-motor centre, but also on the vaso-motor centres distributed through the cord. These centres, to quote Lauder Brunton's words, are so feebly developed as not to heed ordinary stimulation, but can be aroused by the use of strychnia to lend their aid to increase the vascular tonus. This truth has also been proven by experiment; for after section of the spinal cord, which of course paralyzes the vaso-motor centres, the blood pressure can be made to rise by irritation of a sensory nerve.

The combination of atropia with strychnia unites the action of two powerful remedies in urgent cases, and together with cupping, these measures anticipate the slower action of digitalis.

Lastly, I desire to take this opportunity to observe that in cases of pulmonary congestion with degeneration of the heart, and vaso-motor weakness, with or without valvular disease, the association of strychnia with some pure cardiac stimulant, such as alcohol, is frequently superior to digitalis because this latter drug seems at times to produce an unfavorable effect. This unfavorable effect, well established clinically, is difficult to explain, except that the stimulant action upon the heart and pneumogastrics, slowing and steadying the heart, is not associated with corresponding vaso-motor stimulation, and the pulmonary repletion persists. Again, in valvular heart disease the lesion may be so great that two powerful systoles tend to increase pulmonary congestion by forcing the blood in two directions. Thus, the expression that digitalis depresses the heart is sometimes used, and practically such patients are better off without this drug.

Editorial Department.

Periscope.

A Case of Bilateral Herpes Zoster.

The occurrence of this disease attacking both sides at the same time is sufficiently rare to warrant the reproduction of the case which Dr. J. Magie Finny reports in the *Brit. Med. Jour.*, January 10, 1885 :

Mrs, D., aged 40, an otherwise healthy well-to-do woman, consulted me on September 29, 1884, for what she feared was erysipelas of the neck and ear, and for a most severe headache, which had lasted for four days and had deprived her of sleep. She stated that the headache was all over her head, but particularly on the right side, and that at the time of its first appearance she noticed a number of small red spots on the left side of her neck and shoulder ; that these spots had a burning, "sore" pain, that they had increased in size and number since the day before her visit, and that also her right ear was very sore, while a number of painful spots had broken out through her hair on the back of the scalp on the right side.

On inspection the characteristic erythematous patches of herpes zoster, studded with vesicles of various sizes, were at once recognized; and it was evident that both sides were simultaneously affected, although at a somewhat different level. On the left side, the erythematous patches were most numerous ; they followed the distribution of the descending sensory nerves of the cervical plexus, with the exception of the supra-sternal division, and were limited to the upper part of the deltoid and pectoral muscles; a large patch occupied the posterior superior triangle of the neck, and one or two small ones were over the sterno-mastoid. The eruption on this side would correspond to von Bärensprung's variety, *Z. cervico-subclavicularis*. On the right side, the ascending branches of the second and third cervical nerves were those engaged (*Nervus occipito-collaris*), and no patches were visible below the level of the thyroid body, though a large cluster occupied the anterior triangle of the neck as far forwards as that body, corresponding to the junction and cutaneous distribution of the superficialis colli and infra-maxillary branch of the facial nerve. Another patch was on the lower jaw, and a third was situated near the mastoid, over the origin of the plexus. The whole of the external ear was read and swollen, and thickly studded with very minute vesicles, the swelling extending a short way into the meatus auditorius. The scalp on the same side, and strictly limited to that side, as far forward as the mid-parietal region, was the seat of a number of scattered pimples and vesicles (the redness usual in herpes elsewhere being absent), and which followed closely the course of the greater and lesser occipital nerves.

When the patient was seen a few days subsequently, the majority of the bullæ had been arrested or had aborted, some few had become confluent and turbid, and those in the scalp were larger, and most distinctly bullous. The patient's general health had been fairly restored, as she was able to sleep, and the headache and the burning stinging pain in the affected parts had greatly abated. No new spots had appeared, but on the right side, above the clavicle, where the skin was free from all rash, very considerable soreness was complained of.

The treatment consisted of quinine and iron, in combination with sulphate of magnesia, and the local application of flexible collodion to the neck, and weak carbolic ointment to the scalp. The patient soon recovered.

Remarks.—The foregoing illustrates at once the characteristic features of regular herpes zoster and certain unusual peculiarities. To the first belong (*a*) the sudden occurrence of the eruption, (*b*) its course along the cutaneous distribution of the sensory nerves, (*c*) the neuralgic phenomena which preceded and accompanied its appearance, and (*d*) the acute course of the complaint. To the latter may be referred (1) the occurrence of herpes of the scalp, and (2) the co-existence of the disease ta different sides of the neck.

Herpes zoster, or as I consider it might be termed with a nearer approach to an accurate nomenclature, *neurotic herpes*, may be found in almost any part of the body. It has, however, its predilections for certain parts, if one may be permitted so to speak of a disease. The most favorite sites are in the course of the intercostal nerves and the lumbo-sacral plexus; next in order come the brachial plexus, the descending branches of the cervical, and the frontal or facial branches of the fifth nerve. Among the most rare, are the occipital nerve and the nerves of the forearms and legs.

The chief interest of the foregoing case is, however, centred in the fact that the herpes attacked both sides at the same time. This is one of the rarest manifestations of a not uncommon affection; and, indeed, in many of the most recent text books, the possibility of zoster being bilateral instead of only on one side, is not even mentioned. "Unilateral herpes" is the name by which it is sometimes known; and the recognition of the almost invariable rule of its attacking but one side of the trunk, extremities, or face, is of great diagnostic value in contrasting it with catarrhal or simple herpes, which attacks one or both sides indifferently. In the comparatively few instances on record of bilateral herpes zoster, the eruption, as in the above case, is not on exactly the same level; but the cutaneous nerves attacked on one side are on a higher or lower level than those on the other side.

Resection of the Large Intestine for Scirrhous Growth.

Mr. Sidney Jones reports the following case in the *Lancet*, January 10, 1885:

W. K——, aged fifty-four, married, was admitted under the care of Mr. Sydney Jones on May 15, 1884, and died on the 26th.

The family history was good, and there was no record of tumor. She married twenty-nine years ago, and had had seven children, the youngest of whom is aged sixteen. Four died from measles or scarlet fever; the others are living and healthy. She had had no miscarriages. She has suffered from herniæ since the birth of her first child (right inguinal and femoral); for these she had worn a truss, but only for two months. Six months ago she felt pain in the right side of the abdomen; this pain was worse during and after exercise, and she knew of no cause for it. Four months ago she noticed a swelling in the part of the abdomen where she felt pain; it increased in size, but has not changed in position. The pain has been worse after a hearty meal and during exercise, but she did not think that she had lost flesh, and her appetite continued good. She had always suffered from constipation, but since Christmas the bowels had been more than ever confined, and her motions had been of a dark, almost black color recently, but she did not know that she had ever passed blood. The catamenia ceased about seven years ago; until then, she was quite regular.

On admission, she was a thin, pale woman, with an anxious expression, complaining of a swelling in the abdomen. On the right side of the abdomen, about the level of the anterior superior spine, was a solid tumor, about two inches and a half in diameter, of very irregular outline. It appeared to be attached to the abdominal wall, did not move with respiration, but was not fixed; it could be moved from side to side. It was tender to the touch, firm and hard, and somewhat irregular on the surface. The resonance of the abdomen generally was good, but was modified over the tumor; there was not absolute dullness. The abdominal walls were lax, and there was a hernia in both the inguinal and femoral regions on the right side, the former easily descending when the patient stood, and being easily reduced with gurgling; the latter small, descending less easily. The organs generally were healthy. Urine, 1027; no albumen; contained a little mucus. The patient suffered a great deal of pain, and was anxious for something to be done to relieve her.

May 23. The patient having been prepared for the operation in the usual manner, and the bowel cleared by an enema, she was put under the influence of ether, and Mr. Sydney Jones performed the following operation: An incision four or five inches in length was made from above downwards over the centre of the tumor, and when the abdominal walls had been divided and bleeding points ligatured, the carbolic spray was turned on, and the remainder of the operation was completed under it. The tumor was found flattened and adherent to the peritoneum, and there was slight bleeding when it was separated; it was found tg be situated in the upper part of the ascendino and part of the transverse colon. A warm sponge was placed over the exposed intestines whilst the diseased portion was examined. It was decided to excise the cæcum and all that part of the intestine which was involved. The mesentery and omentum were ligatured by silk ligatures, piece by piece, and then divided. A clamp covered with India rubber was put on the intestine on each side of the line of proposed separation, and the intestine was then divided by scissors, and any bleeding points twisted with forceps. A small piece of sponge was inserted into the open end of the ileum whilst the tumor was being dissected out. The tumor and involved intestine were removed from the transverse colon in a similar manner. It was decided to bring the two ends together without making an artificial anus. About fourteen fine silk sutures were passed through the whole thickness of the intestine, so that the two cut ends were united around their whole circumference; others were passed through the serous coat alone, and one was passed (near the wound), so as to attach the serous coat to the abdominal wall. After the clamps had been removed, there was a little ecchymosis and congestion of the gut near the place where they had been applied. The abdominal cavity was then carefully wiped out with dry warm sponges, and three sutures were passed through the upper part of the edges of the wound and one through the lower; the middle part of the wound was left open, and a light plug of iodoform gauze was inserted into it. The wound was dressed antiseptically, a bag of sublimated wood-wool being used to soak up any discharge, and this was bandaged on with carbolic gauze bandages. The pulse was good after the operation. A half-grain supposi-

tory of morphia was given before the patient was put back to bed.

24th. She complained of pain occasionally during the night, and did not sleep for more than half an hour at a time, although injections of morphia were administered at seven and eleven last evening. The urine was drawn off every eight hours. Temperature last night 98.4°; this morning 100°. She had another injection of morphia in the early morning, and suffered no pain during the early part of the day. Pulse 134, bounding and easily compressible; respiration easy (25); tongue dry; has taken ice only; urine 1030, acid, a deposit of lithates, no albumen, some mucus. 2. p. m., temperature 101.2°, patient quiet and without pain. 8 p. m., temperature 104.4°, restlessness, no pain. The wound was dressed on account of the rise of temperature; the plug was found covered with quite sweet coagulum; the dressing gave no pain; the spray was used. The wound looked well and there was no abdominal distention. An injection of one-third of a grain of morphia was given, after which she slept for two hours.

25th. The patient seemed better, no pain; pulse 124 at noon, and occasionally intermittent; temperature, 2 a. m., 103.8°, 8 a. m., 103.6°, 2 p. m., 103°, 8 p. m., 102.6°.

26th. She slept about two hours during the night after the injection of one-third of a grain of morphia. She became weaker towards the morning, and her temperature rose to 104.4° at 2 a. m. She was worse at 8 a. m., when the temperature was 104°, and a teaspoonful of brandy was ordered to be given every hour. 11 a. m., she was sinking; the pulse could hardly be felt, temperature 104.4°. An injection of ether and a nutrient enema were given, after which she revived a little, but sank, dying quietly at 1:45 p. m.

At the post-mortem examination, made on the following day by Dr. Sharkey, the abdominal cavity contained no fluid, and there was no general peritonitis. The site of the operation was the right iliac and lumbar region, where the small intestine had evidently been united to the large after a portion of the bowel had been removed. The line of junction was very vascular, but there was no inflammation except at the point where the mesentery was attached; here dirty-looking pus had infiltrated the tissues. Water injected through the gut passed freely and easily by the seat of the operation; but on putting a little more pressure a larger, but still moderate, stream of water trickled through the wall of the gut at the junction of the mesentery with it. This slight oozing was probably the cause of the local inflammation. There was a moderate degree of atheroma of the valves on the left side of the heart; the lungs were both greatly congested and œdematous in dependent parts; the kidneys were rather small, and their capsules very slightly adherent; otherwise the organs were healthy.

Remarks.—Having little doubt as to the nature and seat of the growth, and taking into consideration the inevitable ending if no operation were performed, either from local extension and involvement of surrounding parts or possibly obstruction of the bowel from diminished calibre of the gut—the patient suffering much pain from the growth, which was increasing somewhat rapidly in size, and being anxious for relief—Mr. Sydney Jones performed the operation described above; and the general local condition (there being no enlargement of the neighboring glands nor visceral disease, as proved post-mortem) justified the expectation of a successful result.

Treatment of Vascular Hypertrophy of the Nose.

Dr. J. Herbert Stowers thus writes in the *Brit. Med. Jour.*, January 10, 1885:

Occasionally, allied to acne rosacea, we meet with instances more or less severe of hypertrophy of the nose. Apart from cutaneous disorder, cases occur in which simple passive congestion of the organ exists, attended with troublesome subjective symptoms, as tenderness, throbbing, irritability, etc.

I am not aware that any special treatment has been advocated for the above, neither do I know that in any published treatise vascular hypertrophy of the nose is fully dealt with.

Chronic passive congestion leads to connective tissue increase, and to the production of lasting deformity; indeed, examples of such must be familiar to all. I do not contend that cases of long standing can always be cured by the method I propose, especially when the apex is pendulous or bulbous, but in acute rosaceous acne, simple passive congestion with enlargement, or fibrocellular hypertrophy, I would commend with much favor the adoption of the plan described by the title "multiple punctiform scarification."

Hebra, years since, suggested that for the more effectual treatment of erythematous lupus, a bundle of scalpels should be tied together, to enable many more or less deep punctures to be made perpendicularly to the surface in the skin by one movement of the hand.

At the instigation of Dr. Sangster, physician to the skin-department of the Charing Cross Hospital, a convenient instrument has been devised whereby the necessary number of minute double-edged steel blades can be included in one handle. Such an instrument I am enabled to show you at this time.

The intense congestion of the skin in rosaceous acne I had often permanently relieved by local depletion, but it was not until I was familiar with this instrument that I learnt the lasting benefit resulting from frequent blood-letting in this and more aggravated states. After the congested organ has been thoroughly fomented with water, as hot as it can be borne, for several minutes, it should be held, and somewhat compressed, between the left thumb and finger of the operator, and then rapidly punctured with the instrument, (two or more blades of which are "guarded" to prevent too deep insertion), perpendicularly to the surface, from base to apex. The compression considerably reduces the pain attendant upon the procedure.

It must necessarily be at the discretion of the practitioner in what cases, and how often, this plan should be adopted and repeated.

Although the number of punctures must vary with the severity of the case, the narration of three cases under my care, permanently benefited, will, I hope, be useful and instructive. These were respectively under treatment seven months,

seven months, and five months, and the corresponding number of punctures in each case were 15,750, 11,150, and 52,200. The average number of punctures tolerated at one sitting will, of course, also vary with the sensitiveness of the part and the endurance of the patient. I have found by experience that from 500 to 3,000 is about the average, for, necessarily, the process is followed by temporary inflammatory swelling, which, however, soon subsides.

The average interval I have allowed to elapse between each operation, has varied from five days to a fortnight, and the quantity of blood abstracted from one to three drachms.

Smearing the surface with vaseline, and protecting from the outer air, especially in cold weather, is the only additional treatment needed, besides such internal remedies, saline aperients, alteratives, etc., as the general condition of the patient may indicate. I may add, I have seen no complication, or untoward symptom, result from this method. The use of alcohol must be emphatically denied.

I repeat, in all instances, lasting and satisfactory results have been procured, and are attributable to the local depletion, which allows recovery of tone of vessels, the contractibility of which has not been permanently destroyed, and also to the invisible scarring which, by after-contraction, reduces the vascularity of the skin. This after-scarring is hardly discernible.

I regard this method as capable of preventing cellular, and fibro-cellular, hypertrophy, which results from long-continued passive vascular congestion of the nose.

Case 1. Elizabeth W., aged 42, single. Duration, five years. She had frequently taken spirits for alleged "weak heart." Debility, dyspepsia, and dysmenorrhœa. Total, 15,750 punctures, distributed over fifteen sittings, and a period of seven months. Commenced January, 1883. Result permanent and satisfactory.

Case 2. A surgeon, suffering from acne rosacea and vascular hypertrophy. Duration, eighteen years; commencing at the age of fifteen. He had suffered from atonic dyspepsia. In twelve separate sittings, extending over a period of seven months, 11,150 punctures; commenced January, 1882. Result permanent and satisfactory.

Case 3. Patrick P., aged 50. Plethoric; health good. Duration, six years. Very abstemious. Total, 52,200 punctures, included in twenty-two separate operations, over a period of five months. Commenced December, 1882. Result to present, permanent and satisfactory.

A Cherry-Pit in the Ear of a Child.

Dr. David Webster reports this case in the *Archives of Pediatrics* for November 15, 1884:

On Thursday, July 24, 1884, at 11 a. m., a girl, nine years of age, while engaged in a frolic, had a cherry-pit blown into her right ear from the mouth of an older sister, with whom she was playing. Half an hour later, she appeared at the office of the family physician, who happened to be absent. She was then taken to the office of another doctor in the same village, who tried to remove the foreign body with a hair-pin, and failed. At one o'clock the same day she was taken again to the family physician, who tried to remove the pit with a small dissecting forceps. The tenderness by that time was very great, and the child had become so intolerant of manipulation that his effort was very short. He therefore sent the child away, advising delay. Nothing more was done to the ear until Sunday, August 3, when the doctor went to the house and tried syringing for half an hour. Not succeeding, he put the child under ether, and tried again to remove the pit with forceps; but as he found he could not readily grasp it, he "gave it up," and on the following day, August 4, he brought the child to me.

Upon examination, I found the auditory canal red, swollen, and sensitive at its inner third. The swelling seemed to diminish the lumen of the canal by about one-half. The extremity of the canal was blocked up by a reddish mass, which was hard to the touch of the probe, and insensitive. From the history, I had no doubt that this was the cherry-pit. The hearing power of the ear was reduced to 2-60, as measured by my watch. The child had suffered pain only during, and immediately subsequent to, attempts to remove the foreign body.

The question now arose as to what would be the best course to pursue. It was evident that it would be extremely difficult to remove a hard, unyielding body like a cherry-pit through a passage having a diameter much smaller than its own. Any effectual attempt to do so would necessarily involve a very considerable amount of violence to the parts. Therefore, as the symptoms were not urgent, I thought it would be wiser to delay any operative interference until the swelling of the walls of the canal had subsided. I advised that the ear be douched with warm water thrice daily by means of the fountain syringe for a week, when the child should be brought to me again, and then, if the conditions were favorable, I would attempt the removal of the foreign body. About a week later, instead of seeing the patient again, I was gratified by receiving a letter from her family physician, in which he stated that on Friday, August 8, after having douched the ear thrice daily, as advised, for three days, the cherry-pit came out while the douche was being used.

It is probable that in this case the foreign body might easily have been removed in the first place by a judicious use of the syringe. It is not improbable that every attempt at its removal by means of the hair-pin and the forceps, only lodged it deeper in the canal, and irritated the contiguous parts, thus helping to increase the swelling of the walls of the passage, already inclined to resent the presence of a foreign body.

I have not seen the patient since, but her physicician, to whose kindness I am indebted for so complete a history of the case, informs me that the hearing is still considerably impaired.

The Etiology of Catarrh.

Dr. George F. Burder thus conclues an article in the *Bristol Medico-Chirurgical Journal* for December, 1884:

The positive conclusions at which I arrive are the following:

1. Catarrh is promoted by the cold of winter, and is greatly checked by the heat of summer.

2. It is promoted by one or more of three causes which occur together—namely, deficient rainfall, dryness of air, and northeasterly wind.

But I need hardly point out how unphilosophical it would be to infer from these results that either the cold, or the dryness, or the northeasterly wind is the essential cause of catarrh. Plague, cholera, and yellow fever are all in a marked degree under the influence of atmospheric conditions, notably of temperature; yet no one believes that either of these diseases is the direct product of heat, or hesitates to assign it a place amongst the zymotic group.

I apply the same principles to catarrh. I believe it to have its origin in a specific organism, the germs of which float in the air. This organism, like other organisms, is dependent for its activity and propagation upon atmospheric conditions. Unlike many, it thrives in cold and languishes in heat. Dry northeasterly winds bring to it life and vigor; while southwesterly winds depress its energies, and the rains which accompany them wash it away. Drawn into the air-passages with the breath, it lodges in the mucous membrane, where, probably, it multiplies and spreads, giving rise to the local symptoms of a cold. There may be nothing more than this, or the organism, penetrating the tissues, may find its way into the blood, and, by its presence in the circulating fluid (where again it multiplies), may set up a state of fever.

To conclude, if the subject of my discourse seem comparatively trivial, I may be allowed to plead that in science nothing is trivial; and that as no error can fail to be hurtful, so no truth can fail to be helpful, and that in a degree not to be measured by the intrinsic importance of the subject to which the truth or the error immediately refers.

Concussion of the Spine and its Relation to Neurasthenia and Hysteria.

Dr. C. L. Dana publishes a paper on this subject in the *New Orleans Med. and Surg. Jour.*, January, 1885, which has for its object the demonstration of the following points:

1. That the term spinal concussion is a misleading and often incorrect one, and that the symptoms which are usually associated with that name are really symptoms of traumatic neurasthenia, hysteria, and hypochondriasis, associated, more or less, with symptoms of injury to the vertebral ligaments and muscles, and to the spinal nerves; that, in other words, spinal concussion is mental shock and physical bruising.

2. That this traumatic neurasthesia is in a measure a real disease, though it is very hard to say how much is real and how much the patient puts on.

3. That it may be, and often is, simulated, and that it requires the greatest care to detect skilled imposters.

4. That we need more objective tests for the purpose of determining the existence of these subjective neuroses.

5. That the prognosis of railway or traumatic neurasthesia and hysteria is very good so far as steady improvement is concerned, not so good as regards complete recovery.

6. That concussion of the spinal *cord* alone, followed by temporary loss of function, or by myelitis, does occur in rare instances.

7. That, in the predisposed at least, injuries and jars may set up chronic myelitis, without there being a lesion of the spinal column.

8. That Mr. Erichsen has, in his book on "Spinal Concussion," erroneously attributed functional troubles to the result of organic spinal disease.

9. That Mr. Erichsen's book on "Spinal Concussion" has a strong tendency erroneously to attribute to a shaking of the spine and a supposed ensuing meningitis, symptoms really due to mental shock, peripheral injury, or malingering.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Those interested in the cure of idiotic and feeble-minded children will read with pleasure a paper on the proper provision for them, by Dr. Isaac N. Kerlin (Boston, Geo. H. Ellis). The author is superintendent of the institution for such cases at Media, Pa., and speaks from a broad and carefully-studied experience. His views may be accepted as those most thoroughly representative of the latest studies in this specialty.

——In a reprint before us, Dr. E. C. Morgan, of Washington, D. C., cites some interesting cases of aphonia due to chronic alcoholism.

——A useful article on the varieties of the induction coil, and the indications for its use, by Dr. A. D. Rockwell, of New York city, has been published in separate form.

——The "Report on the Prevention of Cholera," By Dr. J. H. Raymond, of Brooklyn, looks toward energetic sanitation as the true means. He quotes with approval the words of Sanitary Inspector Chadwick: "The proved secret of cholera prevention is cleansing, keeping clean, pure water, drainage, looking after all epidemic localities, and getting the people out of them. We found in old times that not many yards separated deadly spots from safe ones. For treatment, house to house visitors to look after premonitory diarrhœa, and one of the most essential provisions is some place for treating cases as closely as possible to the attacked house."

——*Godey's Lady's Book* continues to improve month by month, and is now one of the most agreeable family periodicals in the market.

BOOK NOTICES.

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The Internatianal Encyclopædia of Surgery. Edited by John Ashhurst, jr., M. D. Vol. v., 8vo., cloth, pp. 1207. William Wood & Co., New York.

The present issue of this large work is occupied with the surgery of the head and its parts, of the neck, chest, breasts, and abdomen, including hernia. The contributors are fourteen in number. Dr. C. B. Nancrede writes on injuries of the head; Mr. F. Treves on malformations and diseases of the head; Dr. E. Williams on diseases and injuries of the eye; Dr. A. H. Buck on diseases and injuries of the ear; Dr. Geo. M. Lefferts on the nose and sinuses; Dr. A. C. Post on the surgery of the face, cheeks, and lips; Mr. Christopher Heath on the mouth, fauces, tongue, palate, and jaws; Dr. N. W. Kingsley on the teeth and adjacent parts; Dr. Geo. H. B. Macleod on the surgery of the neck; Dr. J. Solis-Cohen on the air-passages; Dr. E. H. Bennett on injuries of the chest; Mr. T. Annandale on injuries ot the breast; Mr. Henry Morris on the abdomen; and Mr. John Wood, of King's College, London, on hernia.

It will be seen that there is a goodly array of names here, and the character of the work is sufficiently guaranteed by mentioning them. The publishers have done their part well, furnishing numerous illustrations, chromo-lithographic and on wood, and presenting the text well printed on good paper.

Organic Materia Medica. A Manual for Students, Physicians, and Pharmacists. By John M. Maisch, Phar. D., Professor Materia Medica and Botany in the Philadelphia College of Pharmacy. *Second Edition.* Lea Bros. & Co., 1885.

This work has been eagerly looked for for over a year, the first edition having been exhausted that long ago. It fills a place that no other book we know of is able to fill as well. True, our dispensatories contain it all, but no student preparing for his examinations has time to cull from them what he must know. A large part of their contents is matter that, of course, it is advantageous to read over carefully, or that is merely for purposes of reference. But this work contains the substance—the *practical* "kernel of the nut" picked out, so that the student has no superfluous labor in searching through the larger works. Besides, not having time to do it properly, he is not always, if ever, competent to decide what is of greatest importance to him, what will be of practical value, and, in short, what he should and must know; but he can confidently accept what this work places before him, without any fear that the gist of the matter is not in it.

Another merit is, that the drugs are placed before him in such a manner as to very much simplify the study of them, enabling the mind to grasp them more readily. The illustrations, which number 242, are most excellent, being very true to nature, and are alone worth the price of the book to the student. It embraces the drugs of the United States and British Pharmacopœias. To the practical physician and pharmacist, it is a valuable work for handy reference, and for keeping fresh in the memory the knowledge of materia medica and botany already acquired. We can and do heartily recommend it. Though a book of over 500 pages, yet it is of a very convenient size to carry or study. The typography, paper, and binding are up to the usual high standard of the publishers.

A Manual of the Practice of Surgery. By Thomas Bryant, F. R. C. S., etc. With 727 illustrations. Fourth edition, thoroughly revised. 1 vol., large 8vo., pp. 1039. Philadelphia, Henry C. Lea's Son & Co., 1885.

Evldently Mr. Bryant has satisfied the expectations of a great many surgical readers, with the rapidity with which edition follows edition of the work before us. Each issue receives his close attention before it sees the light, and is a positive improvement on its predecessor. He is a very just writer, and acknowledges without ambiguity the discoveries and inventions of other surgeons, while he does not yield too easily to the temptation of novelty.

While the volume is a large one—too large to be termed with propriety a "manual"—it is, we are convinced, a decided advantage to the reader, to have the whole conspectus of the science in one, rather than in two or more volumes. The tendency of late years has been for all authors to run into works of encyclopedic dimensions, much to the discouragement of students and readers.

The treatise takes in the whole field of surgery, that of the eye, the ear, the female organs, orthopedics, venereal diseases, and military surgery, as well as more common and general topics. All of these are treated with clearness, and with sufficient fullness to suit all practical purposes. The illustrations are numerous and well printed, and the manufacture of the work is in all respects satisfactory. We do not doubt that this new edition will continue to maintain the popularity of this standard work.

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AGAIN A SALE OF AMERICAN DIPLOMAS IN EUROPE.

The following editorial article appears in the edition of the *Deutsche Medizinal Zeitung* (one of the best, if at present not the best German medical journal) of December 22, 1884. As it can only be of advantage to the medical and dental profession of our country to make the swindle as widely known as possible, and to denounce it in public journals, we bring in the following a verbatim translation of the article in question, whereby we cannot conceal that affairs of this kind by no means contribute to our reputation in Europe.

"*Swindle — Doctor — Diplomas.* The *German Monthly Journal for Dentistry*, 1884, publishes the following interesting communication of Dr. Adolph Petermann, in Frankfort-on-Main:

The *Frankfort Daily* brought in its advertising columns the following announcement:

"Doctor-diplomas of Dentistry, Philosophy, Jurisprudence, etc., are reliably and discreetly procured. Address, C. R. (care of Stationer), 10 Duke street, Bloomsbury, London, W. C."

An inquiry under a fictitious name was responded to from London by two letters from a "Professor" G. Rummler. The first letter is not worth publishing, containing but a general offer and assuring discretion. The second letter was as follows:

LONDON, 32 THORNHILL CRESCENT,
BARNSBURY, March 10, 1884.

Dear Sir: In answer to your favor, I respectfully inform you that you have to deal with an honest man, who will procure you the diploma only from a reliable institute, legally authorized to issue diplomas. The name of the institute is: "Wisconsin Dental Academy."

You may deposit the fee with any banking firm in Frankfort, and have the deposit certified to by the firm and communicated to me, whereupon I shall at once order the diploma for you. If you do not wish to confide in a banking house of your city, it will be best if you will send to me 200 marks (about $70) at once, and the remaining $70 on receipt of the diploma. Any other expenses besides the $140 you have not. Please inform me, when ordering the document, of all your Christian names.

Further, I beg you to sign the enclosed printed

application for graduation at the place where you read the word, "signed." All the rest I shall fill out. You will see at the back of the blank the attest of the President of the Academy that the degree is only conferred, if recommended *by me.* It will take about five weeks ere I can deliver the diploma to you.

Awaiting your reply and the return of the application signed, I am, etc., etc.,

PROF. DR. G. RUMMLER.

The words on the back were *written* as follows:

"DELAVAN, WIS., U. S. A.

"This statement will be honored from any practicing dentist if endorsed by Prof. Dr. Rummler. GEO. MORRISON, *President.*"

The "honest man," "Professor Dr." Rummler, therefore, procures anybody (also under a fictitious name), without trouble, for a payment of $140, and *without any scientific attainments or examination*, a doctor-diploma from a chartered Wisconsin Dental College! Nice state of affairs!

From a former article of mine on the same subject, it will be seen that Mr. Morrison delivers even for $12 such a diploma, while here $140 are demanded. Indeed, Mr. Rummler is engaged in a dirty, but profitable business.

Amongst the advertisements of the *Kladderadatsch* is the following:

"Doctor Diplomas of Dentistry. Their legality officially attested. Discrete and reliable. B. Walden, 41 Princes Square, Kensington Park, London, S. E."

On inquiry at the above address, one receives the reply from Berlin from Dr. Olschowsky, 100 Linden street. Mr. O. is gladly willing to procure the doctor-diploma from an American university, respectively a dental college, whose sole representative he is. After he has mentioned that the institute is legally entitled to confer "honorary doctor titles," he continues, verbatim, as follows: "You are permitted, therefore, to call yourself a doctor here, if you only add to it: 'Conferred in a foreign country,' or, 'not conferred here.' You may see in every Berlin newspaper, especially the *Tageblatt*, that they daily contain many advertisements of this kind, with these words added: "To procure you the diploma need for the beginning only a short curriculum of your life, and I shall then take care of the rest and send you the diploma all filled out, so that you need neither interrupt your daily occupation, nor do anything whatever."

Finally, O. informs the applicant that the whole expenses amount to $200, and that pre-payment is not needed, only the deposit of the sum with a reliable business firm, but best with W. Marzillier & Co., Berlin, S. W., 25 Mörkern str.

On further inquiry, Dr. Olschowsky answers, that all these things "must pass through his hands, as the college does never correspond directly with anybody else," and "that the college in question was situated in Delavan." In a third letter the application for promotion arrived, in a fourth Dr. O. advises quickly to conclude the affair, and in the fifth letter Dr. O. tries to quiet any fears of the questioner, in so far as he tells him that Prof. Morrison, the President of the Wisconsin Dental College, comprehends by practicing dentist only dental technic, and that dental surgeon meant something else. Dr. O. concludes verbatim. "It says, therefore, in the diplomas, which I shall obtain for you, not Doctor of Dentistry, but Doctor of Dental Surgery. Besides I have already procured this diploma for applicants, of whom the gentlemen across the ocean knew that they were not dentists, and it is therefore the same with you. I hope to have removed your scruples, and expect immediate conclusion of the affair, which opportunity I use to inform you that $100 will meanwhile suffice."

Dr. Olschowsky, who has already formerly been active in the distribution of Buchanan's (the so-called Philadelphia) diplomas, now endeavors, therefore, to sell the totally valueless honorary doctor-diploma of the *Wisconsin Dental College, in Delavan, Wisconsin, U. S. A.*, at the price of $200, while the same bogus diplomas are procured through Prof. Dr. Rummler, in London, for $140, and from the Wisconsin Dental College itself for $12. I have sent the letters of Dr. Olschowsky to the Imperial Secretary of the Interior (of Germany), and thus we may hope that from there this dirty trade may be suppressed.

This barter and sale of American diplomas in

Europe ought to be thoroughly exterminated at its source, *i. e.*, in our country; and it would be desirable that all legislatures, or Congress, should pass the most stringent laws, not only declaring the charter of such swindling institutions null and void, but also punishing with penitentiary at solitary confinement and hard labor, for a long period of years, any violation of the law. Of late years our profession has striven most earnestly and successfully to occupy the same rank with its European confréres. American dentistry is recognized all over the world as far ahead of that of other countries; but if American physicians and dentists permit the existence of such swindling institutions, and the sale of bogus diplomas to continue under their very noses, then they must not feel offended if they, on visiting Europe, are looked upon with suspicion, if no special credentials convince their professional brethren across the water that they (the American physicians and dentists) really are graduates of a respectable college.

It is scarcely possible that there can be many such diploma manufactories, and the few that still vegetate ought to be easily eradicated.

CONTAGION OF CHOLERA.

In a report which Dr. Monilleron made concerning the contagious character of Asiatic cholera to the French Academy of Medicine, and which was read by Dr. Proust at the December meeting of this society, the following two cases are mentioned:

1. The French steamer "City of Palermo" passes Gibraltar, and there replenishes its supply of fresh water; it arrives July 17 in Marseilles, stays there until the 24th, and consumes while in this port the water received in Gibraltar. On the 24th fresh water has once more to be taken on board, this time in Marseilles. Two days after leaving Marseilles five persons were attacked by cholerine, and on the 30th one of the ship's boys was seized with a well-pronounced case of genuine cholera. None of the sick died. Although the scientific proof has not been thus given, that the fresh water supplied in Marseilles on the 24th, and drank from that day by the crew, had given rise to the disease, all the surrounding circumstances are in favor of this view.

2. The steamer "Abdel Kader" leaves Marseilles September 18, and arrives on the 20th in Philippeville. While at sea a suspicious case of death occurred. In consequence of this incident, crew and passengers—together, 465 heads—are transported to the Lazaretto of Fort Génis, near Bône, where no case of the disease had yet been observed. Of the 465 individuals 59 then were seized by cholera (19.7 per cent.), and of these 59, nearly one-half, viz., 29 (49.1 per cent.), died. On account of the severity of the epidemic, all the passengers and the crew were separated in various groups, stationed about four miles apart from each other. At once the disease diminished, and soon ceased completely. Without a doubt, the malady originated with the first case of death on board of the ship, and was rapidly propagated in consequence of the accumulation of so many people in comparatively so small a space. It is to be supposed that amongst the many passengers, many evinced a special tendency toward the epidemic. In Bône, which is situated about five miles from Fort Génis, not a single case of the disease occurred, there having been no communication whatever between Bône and the affected district.

These instances prove the contagious character of cholera, its propagation by human beings, and the possibility of its prevention by complete isolation.

THE CONTAGION OF INSANITY.

A sad example recently occurred in New York city of a distinguished expert in insanity who himself fell a victim to that disease.

This revives a question which we have seen broached on several occasions, but which deserves more attention than it has received.

There can be no doubt but that under certain conditions mental maladies are contagious. An epidemic of hysteria is far from uncommon in the women's wards of hospitals. Epilepsy has been known to arise from witnessing a seizure. Certain forms of hallucination seem to sweep periodically over communities, attacking large numbers.

The dancing mania of the Middle Ages corresponded to the tumblers and twisters of the revival scenes in the Western States in 1803–5. The delusion of witchcraft which possessed the minds of the most godly and the most learned in the seventeenth century, finds its counterpart in the not less absurd delusion of spiritualism, which to-day numbers among its believers men high in place and in society.

Like other contagions, the liability to this one varies much with the person. We once asked the superintendent of a large asylum whether he recognized a tendency in sane persons who associated much with the insane gradually to develop delusions. He assented at once, but claimed that it was true only of a limited number, and these, he added, should at once be removed from all association with the mentally diseased.

A German traveler who reports his visit to Gheel, in Belgium, the celebrated "ville des fous," where thousands of idiotic and insane persons live, asserts that the mental powers of the native inhabitants have been distinctly lowered by this constant association with deranged intellects.

The practical lesson from all this is that he who proposes to devote himself to the study of insanity should be very certain that he has no neurosis, hereditary or acquired, which would be liable to be developed by the examples and associations he must necessarily fall in with in pursuing that specialty.

Notes and Comments.

Cerebral Syphilis.

This subject, about which we have already made some remarks, based principally upon the observations of Prof. H. C. Wood, is well illustrated in a case which Dr. James T. Whittaker reports in the *New England Medical Monthly* for January, 1885. It will be remembered that Dr. Wood called attention to the fact that cerebral syphilis is usually a very late manifesfation of the disease; that it oftentimes does not come on for fifteen, twenty, or even more years after the occurrence of the original lesion. In Dr. Whittaker's case the patient, a woman, had contracted syphilis from her husband twenty-four years ago. Being ignorant of the nature of her disease, she allowed the first and second stages to run their course, extending over a period of three years. As well illustrating the history of cerebral syphilis, we give the balance of this case in Dr. Whittaker's own words:

"Since that time she has had no illness, except an occasional enlargement of the glands about the head and neck, and a post-nasal catarrh, which at times gives her considerable annoyance. About fifteen months ago she began to notice a numbness about the lower limbs, which grew so severe that she could not walk, and in the arms and hand so that she became unable to hold anything in her grasp. She next became unable to talk well, both from an inability to seize the right word, and because of a sensation as if her tongue had become thickened. She often had to hesitate for the proper word, and at times her utterances were broken so as to be almost unintelligible. At the same time her sight became dim. After these symptoms had continued for about two weeks, they became less marked and she was pretty well for five months. Then, after suffering for a few days with a slight headache, she suddenly fell, unconscious, to the floor, and lay in that condition for some time. After this occurrence she was for a long time in a partial stupor, and she began to notice twitchings of the muscles of the face and eyes, more especially of the left side. About three months ago, she detected a similar attack coming on, and was able to lie down in time to save herself the fall. During this time, and until six weeks ago, she was under homœopathic treatment for 'catarrh.' She then had a third attack, much more severe than the first, in which she frothed at the mouth, and her muscles were convulsed. She was put upon anti-syphilitic treatment. She has since had no convulsions, but is much troubled by the twitching of her face and eyes, and a sensation as if her tongue and cheek were swollen. She is most of all worried by the dread of a recurrence of the epileptic attacks, so that she is very irritable and morose. Her appetite is good, and the digestive organs generally act well. She sleeps much more than in health and is nearly always drowsy. She could sleep, she says, half the day."

A Case of Dislocation of the Clavicle, Backwards and Inwards, at Its Acromial End.

Dr. A. MacGregor reports the following case in the *London Medical Times*, January 3, 1885:

On the forenoon of the 13th of December, 1882,

H. M., aged fifty, fell upon the posterior aspect of his right shoulder from a height of about ten feet. On assuming the erect posture, he attempted to raise the arm, and on doing so he, "felt something go out of joint."

I saw him on the evening of the same day, and the symptoms then were great pain about the shoulder, very slight bruising, the shoulder not so prominent as, and more rounded than on the other side. The patient could move the arm from the shoulder-joint in every direction to a very considerable extent, and with little or no pain. There was no fracture of the clavicle, and the acromion process was entire, but the outer end of the clavicle was felt to lie more upwards and backwards—more behind the acromion than usual.

I flexed the forearm, seizing the wrist with my right hand and the elbow with my left; pressing upwards with the left hand, I rotated the arm outwards, and with a grating sound the bone slipped into its place. While I held the arm in this position the dislocation remained reduced, and there was no pain; but when the limb was left to resume its original position, the bone immediately slipped back with a jerk.

Treatment.—Reducing the dislocation by flexing the forearm, abducting the arm and rotating outwards while I pressed upwards from the elbow, I fixed the limb in this awkward and uncomfortable position by means of plaster of Paris. A firm pad was placed on the top of the shoulder, and another filled the axilla. These were first fixed by carrying the plaster of Paris bandage round the joint; then the bandages were carried round the chest, shoulder, and arm by a modified figure of eight turns, and ultimately the forearm was fixed in its flexed position in the same manner, leaving the elbow uncovered behind. The chest, shoulder, and upper limb were thus enclosed in a solid case of plaster, which was removed at the end of four and a half weeks, when the joint was found to be quite strong, the bones being in perfect position. In ten days after removal of the plaster, the man was able to resume work as a common laborer.

Remarks.—The injury is unique, and I believe it is the first time that plaster of Paris has been used in injuries of this nature.

The case was at first puzzling, but the diagnosis made and the dislocation reduced, how to prevent the return of the displacement was still more puzzling.

Plaster of Paris suggested itself, and the result was very satisfactory, indeed perfect.

Ruptured Kidney—Death on Forty-seventh Day—Autopsy.

Mr. W. James Spence reports the following case in the *London Med. Times*, January 3, 1885:

Thos. C., aged 30, a laborer, was admitted under Dr. Rabagliati, about 7 a. m., on May 28, 1883, complaining of acute pain in right lumbar region. Shortly before admission, whilst engaged on works connected with railway extension, he was struck on the right flank by the revolving handle of a traveling crane, and knocked down a cutting some sixteen or seventeen feet deep.

On admission he was suffering from collapse, and was bleeding from two or three small scalp wounds. There was no other external injury. The shock passed off quickly, but the pain continued to be more or less severe for some days. An ice-bag was applied to the loins and a dose of opium given. Towards mid-day he complained of increasing pain in the hypogastric region, and soon afterwards voided a large quantity of bloody urine. During the next four days, the urine contained large quantities of blood, but on each succeeding day there was a perceptible diminution in the amount. The patient became much blanched. On June 2d large doses of iron at frequent intervals were ordered, and two days later the urine was quite free from blood. The ice-bag was left off on the 8th. He improved rapidly, and on the 15th and 16th, at his own urgent request, was allowed to get up for two or three hours each day. On the 17th the hemorrhage recommenced, and the urine continued to be mixed with blood until the 21st, when it again became clear. There was no blood on the 22d and 23d, but on the 24th it reappeared and continued to be passed in variable quantity until his death from exhaustion, on July 14th, forty-seven days after the accident. Lead, ergot, turpentine, and other remedies were tried, but they only appeared to afford temporary relief. Shortly before death he passed a large quantity of what appeared to be pure blood.

I was away enjoying my holidays when the patient died, and consequently unable to be present at the post-mortem examination. I am indebted to Mr. Phillips, the house physician, for the following particulars. The rupture was found in the medullary substance at the upper part of the right kidney. The cortical substance was apparently uninjured. The rent was filled up by a decolorized and partly organized clot. The pelvis of the kidney, the ureter, and bladder were distended with blood clot. All the other organs were healthy.

The Treatment of Lead Palsy.

Dr. Philip Zenner reports a case of lead palsy in the *Cinn. Med. News*, December, 1884, in which he says that the treatment will consist of the internal administration of iodide of potash, and the application of electricity to the muscles. The object of the iodide of potash is the elimination of lead which is still in the system. We will apply the galvanic current to the paralyzed muscles. The electrodes will be applied directly over the affected muscles, and the current continuously made and broken—for it is only when the current is made and broken that muscular contractions are produced. The faradic current would, at the present time be worthless, because it can cause no muscular contractions. But after there has been some improvement, the faradic contractility will again return, and the faradic current may then be applied, with benefit.

Rectal Anæsthesia.

It has been very truly said that there is nothing new under the sun. We had occasion to make this observation in reference to the "Rhigoline revival," and now once more we note that in the address before the Academy of Surgery of Philadelphia, Dr. John H. Packard makes the following remarks (*Med. Times*, Jan. 24, 1885):

"Let me mention, as a curious fact, that rectal anæsthesia, generally considered one of the most recent of surgical expedients, was really proposed about forty years ago, and by no less an authority than Pirogoff. Although known to Roux, in Paris, and experimented upon by other surgeons, the method was not long employed even by its inventor, although he occasionally continued to use it in allaying nephritic colic."

Correspondence.

The Revival of the Apparently Dead.

Eds. Med. and Surg. Reporter:—

December 17 surprised us of this region with a severe nor' wester, the thermometer falling in a few hours from very temperate to +10°, a very low temperature for this latitude, and very severe on outdoor animals. My wife had a handsome brood of young chickens, about as large as quails. In the evening several of them were brought to her frozen, and several were missing. She went out and soon returned with two or three badly frozen, and one apparently dead, but she thought she saw signs of life when she took it up, and designed to wrap it up by the fire and try to save it, but when she got to the fire she concluded it dead, and was about to dispose of the dead body, when it occurred to me to try an experiment suggested by a very interesting lecture delivered many years ago by Dr. B. W. Richardson on resuscitation of asphyxiated animals, which, if you conclude will be likely to do good by procuring more patient and persevering efforts to revive the apparently dead, you can publish.

In that lecture Dr. R. makes a distinction of death into glacial and pectous death, the one being only suspension of vital functions, without organic lesion, as in drowning, freezing, etc.; the other being death from some irreparable organic lesion; the first probably recoverable, the second not.

I concluded that this was a case of glacial death, that the organization was uninjured, and having no other immediate engagement, sitting by a comfortable fire, I took the chicken in my hands and commenced to induce artificial respiration by compressing and expanding the chest, which I continued for several minutes with no apparent success. My wife and daughter seemed to regard the experiment as ridiculous, and rather urged its abandonment, but I had become interested in it, and persisted. While squeezing and relaxing its chest alternately, I was thawing its feet and legs with my left hand, and they had become quite flexible. But the head hung down limp, and I perceived no sign of respiration or circulation; indeed, its beak had been for most, if not all the time, closely shut, and I had in fact forgotten the necessity of opening it. I then opened it, and found the tongue closely packed in the upper mandible, thereby hermetically sealing the trachea, so that my artificial respiration (or rather the attempt at it) had so far done no good. I now requested my wife to get its tongue out and hold it while I continued my manipulation, and in a few minutes I was rewarded with a gasp from my patient, and in many seconds, if not a minnte or two, with another, and so on, the intervals becoming very gradually shorter. I desisted from the artificial action several times, but thought it necessary to resume, until in an hour or two (for I neglected to keep time) my little patient was breathing freely; and, being kept in a basket by the fire all night, is this morning apparently as lively as ever.

Now so far as the chicken is concerned, the experiment may be of more or less value, for it might save many chickens thought to be dead, and that may be worth something on the food question. But whether it be new or not (and I do not pretend that it is), may it not be a suggestion of a more patient effort than is usual to revive asyhyxiated human beings? Dr. Richardson's lecture above referred to, especially urged this when the apparent death had taken place in cold water or cold air, for the reason that in warm water or warm air the blood much sooner coagulates, and when that occurs the death becomes pectous, and is irremediable.

Geo. D. Crosthwaite, M. D.

Florence Station, Tenn.

Narcotics and Stimulants in Old Age.

Eds. Med. and Surg. Reporter:

It is with deep regret that I find the following clinical propositions published under the name of Dr. H. C. Wood:

1. "Alcohol and opium are valuable agents to prolong the life of the aged."

2. "If you can make your aged patient an opium eater you will prolong his life."

3. "Every old man ought to take some form of alcohol at meal time." (See p. 100 current vol.)

It is now seventy-five years since I solemnly renounced the use of intoxicating beverages thenceforth and forever; and I have passed my ninetieth year, with my customary healthful vigor and mental activity—while Dr. Wood's *ward* at eighty-five "too good a patient to let die," has his physical energies narcotized by two and a half grains of opium at night, and morphia through the day, his brain case-hardened, and his intellect stultified and demented by alcohol; and thus *preserved*, is laid upon the shelf, the half-mummified relic of what he ought to have been—a *man*. Such a patient is of more value to the DOCTOR than to *himself*.

It is a melancholy fact, that many of our noblest men—men who should have been standing as venerated pillars at the distant verge of life—have succumbed to their gastronomic predilections at the age of sixty. And shall those who may survive another decade be subjected to this mummifying process, and their lives be rendered oblivious to themselves and to others? Is it strange that I should enter protest against such practice? While alcohol and opium may have their use in controlling morbid actions, they can hardly find a proper place in the healthy human system.

E. MICHENER, M. D.

Toughkenamon, Pa., 2 of 2 mo., 1885.

A Centenarian.

EDS. MED. AND SURG. REPORTER:—

I saw in the MEDICAL AND SURGICAL REPORTER of October 4, 1884, an article on "Reputed Centenarians," and as there is a centenarian that lives in my immediate neighborhood, I thought I would report the case. His name is David Gray; was born October 20, 1780, in Pellum township, Massachusetts; that making him 104 years of age last October. He is in good health, although not able to get out-of-doors. Converses easily, remembering dates and events of his past life remarkably.

The arcus senilis is but little developed, although it shows somewhat on the upper margin of the cornea. The radial artery is as soft as that of a person of the age of thirty years. As far as I can determine, there is entirely no ossification.

C. B. BIXBY, M. D.

Mentor, Ohio.

NEWS AND MISCELLANY.

New York State Medical Society.

The seventy-ninth annual meeting of this society was held in Albany, February 3, 4, and 5, 1885, Dr. B. F. Sherman, of Ogdensburg, in the chair.

TUESDAY'S PROCEEDINGS.

The morning session was called to order at 10 a. m., and the proceedings were opened with a prayer by the Rev. J. L. Reese, of Albany.

The President's Address of Welcome

Was then read. It alluded to the absence of a number of those who had been accustomed to attend the meetings, and expressed the speaker's sense of the honor conferred upon him in his election to the office of president. The hope was expressed that a better place might be provided for the meetings in the future, and it was intimated that a hall in the Capitol might justly be placed at the disposal of the society for three days in the year. A more systematic management of the meetings was recommended—either by prolonging the meeting by an additional day, or by recourse to work in sections. Action should be taken with reference to the coming meeting of the International Medical Congress. A communication had been received from the Medical Society of the State of New Jersey that called for notice at once—presenting a proposed curriculum for students. Such alteration of the by-laws was recommended as would do away with the president's annual address, so that the time now given to it might be available for scientific work. The address closed with a feeling reference to the loss of members by death during the year. On motion, the address was referred to a committee of three, to be appointed by the chair.

A communication from the Medical Society of the State of Nebraska was read, presenting resolutions regarding the machinery by which various medical societies should communicate with each other. The purport of the resolutions was not very clear, and, on motion, the communication was referred to a special committee, for consideration and report.

Dr. Wesley M. Carpenter, of New York, presented biographical sketches of James R. Wood, M. D., LL. D., by Frederick S. Dennis, M. D.; of Willard Parker, M. D., LL. D., by William H. Draper, M. D.; of John Glover Adams, M. D., by Gouverneur M. Smith, M. D.; of Joel Foster, M. D., by Francis V. White, M. D.; all of which were referred to the Business Committee, and subsequently recommended for publication.

Dr. Carpenter also presented amendments which had been adopted by the Medical Society of the County of New York, which were referred to the Committee on By-laws; also the following resolution, which was referred to the same committee:

"*Resolved*, That any member neglecting to pay dues and assessments for two years shall forfeit his or her membership, provided he or she shall have received from the Treasurer one month's notice of his or her delinquency. Such member may be reinstated upon the recommendation of the *Comitia Minora*, by the payment of his or her arrears."

He further presented the following communication from the *Comitia Minora* of the Medical Society of the County of New York:

"1. Are all practitioners of medicine required by the laws of this State to become members of some county medical society?

"2. How can membership in a county medical society be terminated?

"3. If membership can be terminated by resignation, must the resignation of a member be accepted by the society in order to make it operative?"

Dr. W. W. Potter, of Buffalo, then reported a case of

Acute Pelvic Abscess.

The case was one of a large non-puerperal collection of fœtid pus behind the uterus, of rapid formation and accompanied with marked constitutional disturbance. The aspirator was employed when fluctuation was well marked, with result of complete relief from pain, but the patient's general condition was still precarious. Various antiseptic injections having been used with little or no result, an iodoform emulsion was introduced into the abscess cavity, after the method used by Dr. David Prince, of Illinois, and with the speedy occurrence of improvement. The patient made a good recovery. Before the attack came on, the patient had been taking cotton-root tea in large quantities, by the advice of an irregular practitioner who had diagnosticated ovarian trouble; and it was a question if this had not had something to do with causing the inflammation. The author referred to the frequency and importance of pelvic cellulitis, and credited Emmet with having done a great service to gynæcology by emphasizing the leading part played by the affection in connection with pelvic disease. As to treatment, the author advocated the radical procedure of prompt evacuation, characterizing it as "the treatment of to-day." It was only by the vagina that pus could safely escape by spontaneous opening, but there was nothing to assure us that the abscess would not break in some other direction if there was no interference with it. The necessity of antiseptic injections into the cavity was insisted upon, and they should be given by the physician himself.

Dr. W. Gill Wylie, of New York, thought that the abscess must have been due either to hæmatocele or to the access of septic material from the oviduct. He thought, too, that it was not the cellular tissue that was the seat of the collection, but the peritoneal cavity. He would prefer a trocar and cannula, with subsequent dilatation, to a knife, for opening such a collection. Caution should be observed in washing out such a cavity with so strong a solution of bichloride of mercury as a $\frac{1}{5000}$ solution. Many pelvic abscesses, especially those of the cellular tissue, were quite as apt to point elsewhere as in the vagina, and in such cases laparotomy, with proper precautions, seemed to him the proper procedure, with removal of the oviducts.

Dr. W. S. Ely, of Rochester, reported a case of what might be termed "latent pelvic abscess," in a girl of sixteen years. The collection was large when attention was first directed to the abdomen. A large curved trocar was passed into the abdomen, below the umbilicus, and out through the posterior vault of the vagina, and through the cannula a drainage-tube was passed. This "through-drainage" was speedily followed by recovery.

Dr. Bowditch related a case of pelvic abscess in a child two years of age, that had been treated like Dr. Ely's case, except that a re-accumulation of the pus led to incision and washing-out of the abdominal cavity, with the most favorable result. We are still too much afraid of opening the abdomen, as, twenty years ago, we were too much afraid of opening the chest.

Dr. David Webster, of New York, read a paper

Jequirity as a Remedy in Granulated Lids,

in which he spoke of the beneficial effects produced by the drug, but said it should be used only in cases in which considerable pannus existed, in solution not stronger than one-fourth of one per cent., making the application once a day, and not repeating it after the characteristic inflammatory reaction began to show itself.

Dr. D. B. St. John Roosa, of New York, then presented a paper on

The Removal of a Cataractous Lens in its Capsule.

If it can safely be performed, he thought that removal of the lens in its capsule would be the best means of removing a senile lens. He suggested an operation which avoids the dangers of the other operations which are generally resorted to. He had performed it in twenty-four cases. He first inserts a speculum, and, holding the edge with fixation-forceps, then with a Graefe knife a large flap of the cornea is made, and the section is half completed; the back of the knife is turned so as to rest upon the iris, and motion and pressure are made with a view of rupturing the capsele; the lens is forced out by pressure. In some few cases it has been necessary to cut the capsule. Since October last, in every case in which he has attempted it, he has been able to complete the removal of the lens with its capsule. He thinks that cocaine has contributed to the success of the operation. This procedure, he believes, does away with the dangers of the ordinary operation. He does not perform an iridectomy.

Dr. Knapp had performed the old operation, in which iridectomy was not done, some two hundred times, and he thought it was fraught with considerable danger, either at once or in the course of healing. It is possible that the use of cocaine may conduce to the successful performance of the operation without iridectomy; but he thought the results would not be as good as when the iris was nicely excised.

Dr. Webster had seen many of the cases operated on by the method of Dr. Roosa, and he had at first been prejudiced against it, but he was gradually coming to view it more favorably.

Dr. Roosa stated that he had operated on only twenty-four cases, and that there had been two total failures, which, however, had nothing to do with the lens. The point in the operation is, that there is comparatively no danger of loss of vitreous. Another important point is the fact that no instrument is inserted into the eye after the section is made.

A paper on *The Use and Limitations of Hydrochlorate of Cocaine*, by C. R. Agnew, M. D., was read by title.

Dr. Milton Josiah Roberts, of New York, read a paper on

Anatomical Geometry and Toponymy; an Introduction to the Scientific Study of Deformities.

He stated that next in importance to the notation of physical facts is the determination of their quantitative relationship to other facts—their mensuration. The measurement of anatomical angles was of direct practical importance to every physician and surgeon. For the purpose of accuracy and facility in our description and comparison of the attitude of individuals, and the position of component parts, Dr. Roberts defined a

number of toponymical terms useful in describing deformities.

For the purpose of studying the normal condition of the human body as to its form and symmetry and the extent of mobility of its component parts, so as to determine and describe pathological deviations therefrom, a uniform position of the body was suggested. This was, when the individual stood erect, resting equal weight on both feet, with the soft parts over the femoral condyles, and malleoli in contact or equidistant from each other, the feet slightly everted, and the head, trunk, and extremities forming practically an unbroken column.

Having pointed out the normal relationships of the planes of the body and limbs, the author declared that it was the business of the scientific physician to endeavor to estimate quantitatively such relationships as soon as they were recognizable. With such information at hand, the amount of pathological deviation therefrom could be determined.

Dr. Roberts suggested the use of the word *dis-astrophometry*. The angles to be measured in several important examples of pathological deviations of the planes of the body and limbs were then detailed, after which he described three mathematical instruments of his own invention for the measurement of the extent of angular deformities in the human subject.

In conclusion, the speaker declared that, with these three instruments, the orthopædic surgeon would find himself as thoroughly equipped for the accurate measurement of angular deformities of the body as the oculist is with his ophthalmoscope and trial glasses, for the measurement of errors of refraction.

Dr. T. H. Pooley, of New York, then read a paper entitled

Some Observations on the Use of Hydrochlorate of Cocaine,

with special reference to its local anæsthetic influence and its effect as a therapeutic agent in ophthalmic surgery. The methods employed had been instillations and injections into the lachrymal sac and duct.

To facilitate the examination of the eye and the treatment of its affections, it had certain advantages over atropine; but as a local anæsthetic, to precede the application of caustics, he had thus far not been pleased with the results. It had occurred to him that the drug might relieve the pain of acute glaucoma, although he had not tried it in this affection.

In conclusion, Dr. Pooley referred to two observations recently made by Weber: (1) the production of a sensation of cold; (2) augmentation of the power of the external recti muscles; facts which may influence the therapeutic use of this drug.

The paper was discussed by Dr. H. Knapp, of New York, who referred first to the discovery of the anæsthetic effect of the alkali, and second, of the mode in which it produces its peculiar influence; the latter was accomplished through the agency of the sympathetic nervous system. There were no dilator fibres in the human iris, and whatever dilatation was caused was done through the blood-vessels acted upon by the sympathetic nerves. Dr. Mittendorf had pointed out that action was accomplished through the sensory nerves, but Dr. Knapp was not quite prepared to accept that view, although it seemed quite probable that both sets of nerves were affected by the alkali. It had no bad effect on the healing of wounds.

Dr. David Webster, of New York, spoke of a case of acute glaucoma in which, at Dr. Agnew's suggestion, cocaine was used, and without effect. With regard to the effect on inflamed eyes, the anæsthesia was not so readily produced as under other circumstances. Concerning iridectomy, he had about made up his mind not to perform any more operations in cases in which the lens was transparent, because of the liability to injure the capsule and thus produce a traumatic cataract.

Dr. Sherwell, of Brooklyn, referred to a case of papilloma of the larynx, minor operations in the pharynx, and dilatation of anus for subsequent operation on a fissure. In all it was unsuccessful, except in producing anæsthesia of the mucous membrane of the pharynx.

The Chairman of the Committee of Arrangements introduced Dr. F. K. Paddock, of Pittsfield, Mass., delegate from the Massachusetts Medical Society, who also spoke of the use of cocaine.

Dr. Pooley closed the ditcussion, in which he spoke of the impropriety of attempting to perform capital operations without the aid of general anæsthesia.

Peroxide of Hydrogen.

Dr. S. S. Wallian, of Bloomingdale, read a paper on this subject. The leading physical and chemical properties of the substance were mentioned. It was said that it might take the place of ozone for many purposes, as a germicide, etc., while it was perfectly harmless in the form in which it was used in medicine. It acted by parting with a portion of its oxygen, which, being no doubt endowed with the peculiar activity incident to the nascent state, combined directly with septic substances, and thus put a stop to the putrefactive process. The author then gave a summary of its therapeutical applications, with special reference to its use in the treatment of diphtheria. Cases of carbuncle, sloughing ulcer, and septic infection (one of each) were then alluded to as having occurred in the author's practice and having been treated with the peroxide with brilliant results.

Dr. T. H. Squire, of Elmira, then described a

Case of Tubal Pregnancy,

in which rupture occurred while patient was at stool. A collection of blood in the lower portion of the abdominal cavity soon formed, and was removed with the aspirator. For some time the patient suffered from septic poisoning, and at last an exploratory incision was decided upon. So many adhesions were met with that the operation was abandoned and the wound closed. The patient at first improved after the operation, but finally sank and died nine months after the rupture had taken place. The autopsy revealed the fact that only one inch of the uterine portion of the left Fallopian tube was present; the rest, together with the right, was destroyed, or so diseased as to be scarcely recognizable. Behind the right broad ligament was an abscess containing twelve ounces of pus. As of interest in connec-

tion with the preceding paper, the speaker stated that in this case 1,200 observations had been made with the thermemeter, and in many instances the temperature was subnormal.

WEDNESDAY.

Dr. A. C. Post, of New York, read a paper

On Senile Hypertrophy of the Prostate,

in which he described the varieties of the affection, the pathology, the symptoms to which they gave rise, the methods of diagnosis, and the treatment. Special attention was directed to withdrawal of residual urine, once, twice, or more frequently, daily, by means of the catheter.

Dr. Post also exhibited a hard-rubber syringe, which he had devised for washing out the bladder, "Post's vesical syringe."

The securing of a full size of the urethra anterior to the prostate is the most important point in treatment. If the solid catheter was used, *great care* should be taken in instructing the patient how to use it properly.

In cases of large quantity of residual urine, it is not safe to withdraw all of it at the first use of the catheter. In cases in which it is very difficult to introduce the catheter, the instrument may be left in position for twenty-four or forty-eight hours. A large number of catheters were exhibited, which had been devised for overcoming the obstacles incident to local treatment, as false passages, excessive narrowing of the urethral canal, etc.

Dr. T. H. Squires, of Elmira, spoke of the treatment of prostatic retention, and he believed that in all cases the bladder could be emptied without special skill. In most cases, the soft catheter, or solid catheter of large size, can be used successfully, and in addition he would suggest gum-elastic catheters of large size and large curve.

Dr. Vanderveer, of Albany, thought that the catheter should be used from the development of the first symptoms. He preferred the silk-web catheter, and also the fountain syringe, filling the bladder to comfortable distention, and allowing it to run out.

Dr. F. M. Hamlin, of Auburn, then read a paper on

The Opium Habit,

which contained some startling statistics touching the increase of the habit in this country, as shown by the largely-increased consumption of the drug. In 1840, he said, the total quantity of opium consumed in the United States was about 20,000 pounds. In 1880, it had increased to 533,450 pounds. In 1868, it is estimated that there were from 80,000 to 100,000 victims of the opium habit in this country; now they number over 500,000. The growth of the habit has been rapid within the last few years, owing, as he thinks, to the invention of the hypodermic syringe, which has become a favorite method of administering the drug. More females than males are addicted to the use of the drug—the ratio being about three to one—women being subject to a larger number of painful ailments than men. From the time of the publication of De Quincey's *Confessions of an English Opium Eater*, in 1821, until within a few years, physicians have overlooked or ignored the serious consequences of the opium habit, and the people generally have come to look upon it as a comparatively harmless vice. It is now commanding more attention. Dr. Hamlin described the effects, immediate and remote, of the opium habit, speaking, as he said, in some degree, from personal experience, having been induced to enter upon the habit to allay the miseries of sick headache. If opium be used inordinately during pregnancy, it is apt to induce abortion, or if this do not follow, then the child is likely to be defective. He concluded his paper by presenting his method of treatment for the cure of the habit, which he describes as a sudden reduction in the quantity of opium indulged in; not an immediate and total cessation of its use, which would be injurious, but a reduction in quantity covering a week or two weeks, and accompanied with stimulants of a different kind, such as hyoscyamus, belladonna, etc., until a cure is effected.

Under this method of treatment, he thought that every case not connected with a chronic painful affection could be cured. The after-treatment is similar to that pursued in cases of typhoid fever.

A demonstration of the electric light for medical purposes was made by Dr. Lucien Howe, of Buffalo. The battery was of zinc and carbon elements connected for quantity, and the light was of rather more than six-candle power. The one shown was attached to a head-band. The cost of the apparatus was about $22. It was of Trouvé's make.

Maternal Nursing and Artificial Feeding, and their Relation to Infant Mortality,

Was the title of the next paper, by Dr. J. E. Winters, of New York. It consisted largely of statistics tending to support the common view of the great desirability of mothers nursing their own children, and in violent opposition to the employment of wet-nurses, whom the author characterized as unmitigated evils.

Dr. Bell alluded to corroborative statistics.

Dr. Ely wished to express his dissent from some of the views that the author of the paper had stated, especially in regard to the notion of the transmission of moral qualities from nurse to nursling.

Dr. Townsend, of Albany, spoke of his unsatisfactory experience with predigested milk, and various prepared foods, all of which were vastly inferior to the milk of a wet-nurse.

Dr. Jacobi thought the paper very open to criticism, chiefly from its being "sensational," at variance with the best experience, and largely founded on anecdotes.

Dr. Mittendorf, although connected with two institutions for infants, could not support Dr. Winters's views.

Dr. Winters retorted that his paper could be called "sensational" only if facts were "sensational," for he had dealt chiefly with facts.

The president then delivered the annual address, taking for his subject

Medical Evidence.

An eminent writer* says, "A doctor who knows nothing of law, and a lawyer who knows nothing of medicine, are deficient in essential requirements of their professions."

* David Paul Brown.

The object of jurisprudence is the discovery of truth; and the whole range of science, physical and moral philosophy, medicine in its widest sense, everything which experience has established or can discover, are rendered subservient to justice. While there are no limits to the sources and objects of evidence, certain rules have been adopted which restrict its admission. These rules are rigid, and too numerous and complicated to be discussed here.

An expert is selected by the court, or the parties concerned, for his supposed special knowledge or skill in particular matters to which he is to testify, or make a report embodying his opinions.

I cannot better define the duties and requirements of the expert than to quote in full from Elwell:

"Extra knowledge on questions of science, skill, trade, business, or other matters requiring special knowledge, qualifies the person thus informed to give *opinions* in courts of justice. This is contrary to the general rule that the witness must confine himself to facts, and leave the conclusions of those facts to be determined by a court or jury under oath. An opinion is the judgement which the mind forms on any proposition, statement, theory, or event, the truth or falsehood of which is supported by a degree of evidence that renders it probable, but does not constitute absolute knowledge, truth, or certainty.

"These opinions or conclusions of judgment which make up such opinions of experts, are the same in substance as the verdict of a jury or judgment of a court, which is nothing more than the opinion of such jury or court as to what is established by the facts in the case. This conclusion or opinion, in the latter case, is given under the sanction of an oath; so is that of an expert. There is this difference, however, in the two cases. The court or jury are under oath while they are making up their opinions upon the facts in the case, and these facts upon which the opinion is predicated are also submitted to the minds of counsel and parties. The facts are also given by the common witness under oath, upon which the jury or court makes up an opinion. The expert, on the other hand, comes to the results constituting his opinion, which is to be received in evidence, from his own private study, observation, and reflection. He is not under oath when he weighs his facts, and however anxious he may be to arrive at correct conclusions, he is not under the significant and impressive obligation of an oath to do so; and though the facts upon which the witness' opinion is based may be called for by counsel, yet from the very nature of the case it is not to be expected that the jury or the court will understand them."

Importance of Medical Evidence.—No man, be he professional or layman, is properly qualified to appear as a witness without some knowledge of his duties, and the rights pertaining thereto.

The medical man, as a witness, is subjected to the most rigid criticism as to what he says, how he says it, and why he says it, and also to all the influences that may have a bearing upon it. This criticism comes not only from the opposing counsel, but also from the party by whom he is called; and he is thus placed, as it were, between two fires, from which he is fortunate if he escapes without being wounded, and especially so if he is an important witness.

Ignorance and deception may triumph in the sick-room, where it is not cross-examined, while in open court it can find no protection, and must be exposed. The medical witness must understand the general rules of evidence, without which he is sure to meet with interruptions and chagrin, if not disgrace. No one should presume to enlighten the court and jury in a difficult case, unless he is able to do so. He may be compelled to attend court, like other witnesses, but no witness is compelled to testify to what he don't know, and if he is not qualified, the safe and honorable course is to acknowledge it.

Duties and Responsibilities of Medical Witnesses.—While works on medical jurisprudence must be studied and analyzed, it is not in them that the medical witness will find the directions he needs to prepare him for the important duties of making up and giving opinions, that are to be received as facts by the court and jury.

In a report made to the American Medical Association, the writer, in speaking of the medical witness, uses the following language: "If, however, he concludes to form an opinion and testify, there are certain rules and regulations which he should adopt, not only to give force to his testimony, but for his own protection.

"1. He should listen attentively to the testimony, as to all the facts in the case, and avail himself of every authentic means of forming a correct opinion.

"2. He should studiously guard against being biased, either by popular clamor, or because he is called by one side rather than the other.

"3. The medical witness is not to take into consideration the influence which his testimony may have on the prisoner at the bar, or the case under consideration.

"4. The expert is called to testify as to the bearing of the testimony given, and though he may have his own doubts of the truth of the testimony, yet, if it stands unimpeached, he must receive it as truth.

"5. A medical witness should not assume the province of the jury.

"6. The medical witness should have his mind fully prepared, before taking the stand, as to what he can testify to, and his reasons, if they are required."

The medical witness is rarely called upon to testify to facts, as gathered by the exercise of his senses; but to give the deductions drawn from the facts given by others. These facts may be new to him, and may be drawn from any part of the wide domain of science; yet he may be called upon to give an opinion, with no time for reflection, or for reference to authority; while counsel who manage the case have plenty of time to familiarize themselves with the authorities, and with all the evidence bearing upon the case. The common witness has simply to state the facts within his personal knowledge, but the medical witness must know the facts first, constituting the case upon which his opinion is desired; he must apply to these facts his special knowledge, and from this reach a conclusion in his own mind, and give this opinion to the jury. He should never permit himself to be drawn into a discussion while upon the stand.

Before answering a hypothetical question, the witness should weigh every word and see that there is no confusion or contradiction of terms or language, and then confine his answer closely to the supposed case. The courts require a hypothetical question to contain only facts that are in the case, and the expert says what they prove scientifically.

If the question involves an impossibility, as it sometimes does, the witness should decline to answer until a definite case is put.

THURSDAY.

Dr. S. O. Vanderpoel, of New York, read a paper entitled

Does Quarantine Protect?

The probability of the occurrence of cholera renders this question pertinent. The dissemination of the disease is attributed to the Mecca pilgrims. Its natural home is Calcutta. The measures enforced to prevent its spread are inspection during the period of migration, at an island in the Red Sea, and at the seaport of Mecca.

Owing to sanitary inspection during the past eight years, the spread of cholera by the Mecca pilgrims has been prevented. The recent epidemic in Egypt was attributed to the fact that Great Britain had evaded the quarantine regulations. If quarantine be effectively carried out, cholera could not occur. But if cholera once acquire a foothold—quarantine is useless. Then local hygienic measures are to be used. Cholera can only come to this country from Europe.

If a thorough medical inspection of individuals and of clothing coming from distant ports be made, if suspicious cases be isolated and their excretions disinfected, it is almost impossible for the disease to extend to this country.

If a vessel comes to our shores with cholera on board, it should not be allowed to reach the mainland. Passengers should be disembarked and kept under close observation for ten days, and ten days after the last case has appeared, they may be allowed to proceed. There are only five ports in this country at which steerage passengers are landed, viz.: New Orleans, Baltimore, Philadelphia, New York, and Boston. A rigid system of inspection should be begun at once, and it will be our own fault if cholera reaches our shores.

Dr. H. I. Bowditch, of Boston, fully endorsed the views expressed by Dr. Vanderpoel.

The following resolution was then adopted and ordered to be transmitted to the President of the United States:

Resolved, That it is the sense of the New York York State Medical Society that the United States Government should, in view of the probable importation of cholera poison during the present year, promptly take steps to enforce proper sanitary measures at foreign ports where the disease exists.

OFFICERS FOR THE ENSUING YEAR.—In accordance with the report of the Nominating Committee, officers were elected as follows:

President—Dr. A. Vanderveer, of Albany.

Vice-President—Dr. A. C. Post, of, New York.

Secretary—Dr. W. M. Smith, of Syracuse.

Treasurer—Dr. C. H. Porter, of Albany.

Censors—Southern District, Dr. F. A. Castle, Dr. G. H. Fox, and Dr. David Webster, of New York. Eastern District, Dr. Joseph Lewi, and Dr. N. L. Snow, of Albany, and Dr. LeRoy McLean, of Troy. Middle District, Dr. A. Churchill, of Utica, Dr. L. Griffin, of Binghamton, and Dr. R. Frazier, of Camden. Western District, Dr. T. Dimon, of Auburn, Dr. M. G. Kittenger, of Lockport, and Dr. D. Little, of Rochester; for the College of Medicine, Syracuse University, Dr. I. N. Goff, of Cazenovia.

Committee of Arrangements—Dr. S. B. Ward, of Albany; Dr. W. S. Ely, of Rochester; and Dr. E. L. Partridge, of New York.

Committee on By-Laws—Dr. W. C. Wey, of Elmira; Dr. H. G. Piffard, of New York; and Dr. W. M. Smith, of Syracuse.

Committee on Hygiene—Dr. E. V. Stoddard, of Rochester; Dr. F. C. Curtis, of Albany; Dr. A. N. Bell, of Brooklyn; Dr. G. J. Fisher, of Sing Sing; Dr. E. Hutchinson, of Utica; Dr. H. Bailey, of Albany; and Dr. J. P. Creveling, of Auburn.

Committee on Legislation—Dr. D. Lewis, of New York; Dr. S. B. Ward, of Albany; and Dr. F. R. S. Drake, of New York.

Committee on Ethics—Dr. A. Jacobi, of New York; Dr. A. Matthewson, of Brooklyn; and Dr. J. W. Whitbeck, of Rochester.

Committee on Prize Essays—Dr. W. W. Potter, of Buffalo; Dr. W. S. Ely, of Rochester; and Dr. H. R. Hopkins, of Buffalo.

Committee on Publication—Dr. W. M. Smith, of Syracuse; Dr. C. H. Porter, of Albany; and Dr. A. Mercer, of Syracuse.

Medical Society of the State of Pennsylvania.

This body will hold its thirty-seventh annual session in the city of Scranton May 27, 28, and 29. As the programme of the meeting must be distributed at least one month prior to the meeting, all who desire to present papers at this session are requested to forward to the undersigned the title and a brief abstract of the same not later than March 15, 1885.

It should be remembered that no voluntary paper is allowed to occupy more than twenty minutes in reading.

W. B. ATKINSON,
Permanent Secretary.

Changes in Hospital Staffs.

Drs. Hunt and Packard take the places of Drs. Morton and Levis as attending surgeons at the Pennsylvania Hospital. Dr. Horwitz becomes resident physician in the same institution in place of Dr. Trotter, who has served his term.

At the Presbyterian Hospital, Dr. Hunter Robb takes charge of the surgical ward, and Dr. W. J. Simpson takes the place of Dr. Hamaker in the medical ward, the latter taking a similar position in the University Hospital.

Lawson Tait's Opinion of American Medicine.

In his "American Notes," this distinguished English surgeon tells his colleagues of the Birmingham Medical Society that the general summary of his visit to the United States and to Canada may be briefly put in the statement that no Englishman can obtain a reasonably full grasp of how the world is moving, or of the numerous phases of life, medical and surgical as well as others, until he has seen life across the Atlantic.

Information Wanted.

Reports of surgical operations upon the gall-bladder or ducts, whether previously published or not, are desired for a contribution to an important work; and all facts connected with them will be thankfully received by J. McF. Gaston, M. D., Atlanta, Ga.

Personal.

Dr. Mary A. Swayze has been elected Vice-President of the Schuylkill County (Pa.) Medical Society.

Items.

—In the *Quarterly Journal of Inebriety* for January, 1885, Dr. Robert Lawson, of England, publishes an interesting paper on "Brain Disorders from Alcohol."

—In the *Annals of Surgery*, January, 1885, Dr. Lewis A. Stinson publishes an interesting paper on "An inquiry into the origin of the use of the ligature in the treatment of aneurism."

—In the *Lancet*, January 19, 1885, Dr. Arthur E. Barker reports a case of excision of the kidney for ruptured ureter and urinary abscess, in a child aged three years and eight months; recovery.

—Dr. Osborn was recently elected to membership in the Academy of Medicine of Cincinnati, e making the fourth female member. These u lady physicians are fairly active members of e academy.

—We learn that the Illinois Central Railroad will furnish an excursion train of Pullman parlor cars for the physicians and their families who think of attending the meeting at New Orleans, to leave Chicago on Saturday evening, April 25, at 9 o'clock.

—The Medical Department of the Columbian University, Washington, D. C., has opened its doors to women during the present session, four of whom have already matriculated. This step was not taken without due deliberation, and the male students do not seem to be disturbed by the introduction of a new element into their midst.

—At the meeting of the New York Academy of Medicine, January 15, 1885, Dr. C. C. Lee, chairman of the committee on education, reported that, after a full and careful consideration of the resolutions referred to at the last meeting, the committee deemed it inexpedient for the Academy to take any action at present in regard to the question of a State Board of Medical Examiners.

—A Baltimore cooking school was opened by a number of subscribers desirous of securing a supply of trained cooks for that community, January 19. A building has been erected at a cost of $5,000, and capable of accommodating a class of seventy-five to one hundred persons. It is said to be the first distinctively cooking school erected in this country.

—At a recent meeting of the Philadelphia County Medical Society, Dr. H. Leaman pesented a dynamometer, by which he claims he can measure the value of that part of a uterine contraction which is available in the expulsion of the fœtus. It is intended to measure the expulsive force of the uterus minus the resistance in succession of the uterine cervix, pelvic walls, and perineum, and might be called a parturiometer. He thinks it will prove valuable as a means of determining when instrumental interference becomes necessary.

—Dr. Robt. J. Lee, in a clinical lecture upon infantile syphilis (*Lancet*, October 18, 1884), calls attention to the fact that too much reliance must not be placed upon the presence or the history of symptoms in the mother. He states that the most common occurrence in married women is that they are free from all symptoms. The next most common is some of what are known as tertiary symptoms. The least frequent are active secondary symptoms. In the condition of the father must be sought the explanation of the varying symptoms presented by both mother and child.

—A painful instance of the danger of using anæsthetics by unskilled hands was furnished a short time since by a dentist in Paris. A gentleman died suddenly whilst M. Duchesne was extracting his tooth. M. Brouardel, after a most careful necropsy and examination, states that there were not any natural causes of death, but that it ensued from an excessive inhalation of an anæsthetic. The brain, heart, and intestines were sent to the toxicological laboratory. It has been ascertained that the extraction was bloodless; therefore, death must have occurred before the operation was effected.

—A report having been made in the newspapers that the Garfield Memorial Hospital was about to close its doors for want of funds, a statement has been published that its financial condition is not so depressed as has been represented. It certainly is in need of funds, but it is out of debt. Since its opening, in June, 1884, 115 patients have been received, of whom 79 occupied free beds. The Surgeon-General of the Army, Dr. Murray, speaks unqualifiedly in approval of the management. The ladies who have undertaken to procure funds for the institution are still sanguine of being able to provide the necessary ways and means for its support.

QUERIES AND REPLIES.

MESSRS. EDITORS:—

Please explain what is meant by a four per cent. solution, and oblige, W. B. J.

Ans.—A four per cent. solution is where four parts of a substance by weight is dissolved in ninety-six parts of water by weight.

MESSRS. EDITORS:—

In case a woman applies to a physician for an abortifacient, is it ethical and legal for him to give her some inert preparation, and thus preserve the life of the unborn babe from further attempts, by a slight deception?

ANXIOUS.

Ans.—We suppose it is legal, and perhaps it is ethical; but we think that a square refusal to do anything, real or pretended, toward accomplishing such a purpose, is the wisest course.

MARRIAGE.

WILLIAMS—JEWETT.—January 29, 1885, at Macon, Ga., Dr. Howard J. Williams and Mattie Kittie, daughter of Mr. Henry L. Jewett.

THE

MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

LECTURE.

CLINICAL LECTURE ON DISEASES OF WOMEN. DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROFESSOR T. GAILLARD THOMAS, M. D.

Gentlemen: Before I commence the regular work of the hour, let me again make a remark, and enforce it with an illustration, which I have already incidentally had occasion to make to you; and that is, that no one ought to engage in the study of medicine with the view of making it his profession for life unless he has a good physique and enjoys ordinarily good health. This morning I had just finished a lengthy surgical operation when I was called by a physician to see a lady who at the end of seven and a half months of utero-gestation was suddenly seized with violent pains and profuse hemorrhage. On making an examination, I found two very important conditions present, viz., placenta prævia and an arm presentation. In addition, the pelvis was so deformed that I could not pass my arm through it, so that altogether the case presented a most discouraging combination of circumstances. The blood was gushing out of the uterus in torrents, and there was nothing to do but to attempt version as soon as possible. On account of the contraction of the pelvis, however, it took me a whole hour to accomplish this, though I was working as hard as I could all the time. In consequence of the prolonged and severe exertion, I was utterly exhausted; and although several hours have elapsed since then, the exhaustion still continues, so that I feel scarcely able to appear before you. If I had not been of a robust constitution, I could not have borne the necessary fatigue; and I wish to impress upon you, therefore, that cases are very liable to occur in practice when human life depends not so much on the skill as on the physical strength of the physician.

Gonorrhœa in the Female.

Our first patient to-day is Mrs. Lizzie O'B., a native of Ireland, and twenty-nine years of age. She has been married five years, and has had two children, but no miscarriages. Her last child was born three and a half months ago, and she has continued to nurse it since that time. In answer to our inquiries, she says that she has been sick for about a fortnight with something which she got from her husband. The latter, it seems, told her that he himself had some trouble about his privates, which he contracted "through the use of an unclean instrument." The principal symptoms of which she has complained are, pain in the back, a profuse purulent discharge from the vagina, and a constant desire to pass water. Almost every fifteen minutes, she says, she has to pass a little, although the act of urination is not accompanied by burning sensations.

Here is a very short and simple story. The husband, who frankly acknowledged that he had gonorrhœa, communicated the disease to his wife two weeks ago, and the usual symptoms have resulted. On making a physical examination, we find upon separating the labia vaginæ that the parts within have actually the appearance of red flannel, so completely congested are they, and that they are hot to the touch. About the

meatus urinarius there is a decidedly granular congestion, and from the urethra is constantly flowing a stream of creamy pus. The whole vagina is bathed with the ichorous material, and it is also flowing from the os uteri, although here it is not of such a creamy character as that coming from the urethra. It is not always that we get such a clear history of gonorrhœa in the female as in this case. Gonorrhœa in the male is not ordinarily a very severe disease; but occasionally it is disastrous in its results, and I have personally known of one death attributable to it, the inflammatory process having implicated the bladder, and thence extended along the ureters to the kidneys. In the female, however, gonorrhœa, as a rule, is a much more serious affection; not so much in the dangerous character of its acute symptoms as of the results, since it is exceedingly apt to be followed by ovaritis and inflammation of the fallopian tubes, which sometimes renders the performance of Tait's operation necessary. Still, while it is of a serious nature, it is not so much so as some of the other affections peculiar to females, such as pelvic cellulitis.

In some cases vulvitis, vaginitis, urethritis, cystitis, endo-cervicitis, metritis, salpingitis and ovaritis, all result in turn. Therefore it is a disease which requires careful treatment in its earlier stages, so as to avoid, if possible, such an unfortunate train of evils. In the present instance I have advised this patient to put herself under the care of a competent physician, and will recommend to the latter that he should personally make injections into the vagina and into the urethra of a solution of the bichloride of mercury of the strength of 1 to 2000. In addition to this, I think it would be advisable to inject the bichloride solution into the canal of the cervix itself, and from time to time to place against the os uteri a pledget of cotton saturated with the same, and provided with a string for its easy removal. Usually in these cases the patient is given by her physician one injection, which she is told to inject into the vagina night and morning. As a fact, however, the injection gets into only about one-half of the vagina, leaving a large portion of the canal untouched, and never reaching the urethra or the cervix. Consequently, such a course of injections cannot effect a complete cure. There may be some temporary improvement; but there is sure to be a "relapse," because the inflamed mucous membrane not reached by the injections goes on pouring ont its ichorous discharges. In this way the disease may become chronic and last for months, or even years. If we are going to cure it, therefore, we must attack it in its most secret lurking places; and this is to be done in the manner which I have described. As to the husband's story that he contracted the disease from an "unclean instrument," that is no doubt to be regarded as altogether chimerical. There is a possibility, of course, of such a thing having occurred, but it is exceedingly remote.

Uterine Fibroids.

Our second patient is Mrs. Margaret T., 27 years of age, a native of Ireland, and unmarried. She says that she has been complaining for about ten months, and that the first thing which she noticed was a severe pain in the right side of the abdomen. Menstruation has occurred regularly during the last ten months, but lasts much longer than formerly; the discharge continuing for about ten days. The flow, however, is not excessive on any one day.

This is a very meagre history; but it is sufficient to direct our attention to the pelvic organs, and a physical examination reveals abundant cause for the symptoms complained of. In any case, therefore, where there are any symptoms referable to the pelvis, I cannot urge upon you too strongly the advisability of making such an examination before venturing to prescribe for the patient. The woman lying on her back, I found on passing my finger into the vagina that the uterus was a little drawn to one side, and to the right of it I discovered, with the aid of conjoined manipulation, what I now show you upon the blackboard, viz: two large round masses, one above the other. Each of these rolled very freely upon the other, but neither of them could be removed without dragging the uterus along with it. This was proved beyond question by the fact that a sound placed in the uterus was very perceptibly rocked by the movement of the masses.

This question now comes up, What are these masses? In the first place, they cannot be accumulations of fæcal matter in the *caput coli*, because they are too symmetrical in outline, and because they are movable. Fæcal tumors, it is well for you to recall, are never movable. They are sometimes, however, as large as a child's head at term, and I have known very experienced physicians to mistake them for cancerous growths in the pelvis. In the second place, they might possibly be supposed to be deposits of lymph, resulting from inflammatory action, or, in other words, phlegmons. Phlegmons, however, also are never movable, and they are never insensible to pressure, as these tumors are found to be. It would also be highly

improbable that there should be two of them together, as is the case here. In the third place, are they ovarian cysts or growths? No; because they are solid, and solid ovarian tumors are exceedingly rarely met with. But, even were such not the case, this diagnosis would be excluded by the fact that there are two tumors here.

It is reasonable to conclude, therefore, that these growths are uterine fibroids. They are of the sub-peritoneal variety, and from the past history of the case we infer that they are growing very rapidly. The prognosis in this instance is not as satisfactory as in some others of the same affection, which I have had occasion to show you during the course. Some of you will perhaps think that I give a different prognosis in every case of uterine fibroid that I have to deal with; but a man who has a routine prognosis and a a routine treatment for all cases of this character is a charlatan. In the last case that I brought before you, the growths were considerably larger than here, and the patient was 42 years of age, and as the menopause was to be expected in three years, I prophesied with confidence that she would have no more trouble after that time, and advised that nothing whatever in the way of treatment should be attempted. With our present patient, however, matters are very different. She is now only 27, and hence has nearly twenty years to go before the change of life. In addition, the tumors have already grown very rapidly, and there is a baggy feel about them which indicates with considerable certainty that this rapid process of development is going to continue. Unless something can be done, therefore, to arrest this growth, the prognosis is very unfavorable. It is now about eight months since these fibroids were first detected by the physician who has been attending the patient, and he thinks that in that time they have doubled their size. If, then, this rapid growth should continue, what will they be at the end of eighteen or twenty years?

From the premises in the case of the woman 42 years old, my deduction was that she should be let alone, because she was rapidly approaching the menopause. From the premises here, however, my deduction is that it is our duty to interfere, though not immediately, by operation.

We will first try to stop the hemorrhage. There are, as you know, drugs which have the effect of causing contraction of the blood-vessels, and typical among these are the ergot of corn and the ergot of rye. For the next three months, therefore, I will recommend that ergot should be administered systematically; but if by the end of that time we find that these growths have increased in size instead of diminishing or remaining stationary, and that the hemorrhage at the menstrual period lasts for fourteen days, instead of ten, I would advise the removal of the ovaries by Hegar's operation. By doing this, we would simply accomplish what nature practically does at the time of the menopause; and, as far as the function of menstruation is concerned, we would place the patient at the age of forty-seven instead of twenty-seven. If there is nothing malignant about these tumors (and there is no reason to suppose that they are of a sarcomatous character), the patient would cease to menstruate after the operation, and the uterus would soon become forgotten by the economy. In such cases the blood-vessels become atrophied and sometimes atheromatous, and masses like these, connected with the uterus, shrivel up. It would not be a safe proceeding to remove the tumors themselves by operation. I trust that in two or three months from now we may again have the opportunity of seeing this patient, and we can then decide more satisfactorily as to what is best to be done in her case.

You know that it has been said that menstruation does not depend on ovulation. This physiological question is an interesting one; but it is not important, for in the very large majority of instances in which I have operated I have found that when I remove the ovaries it puts a stop to menstruation. Personally, therefore, I feel convinced that menstruation does depend on ovulation. In a few rare instances I have noticed that menstruation went on after the ovaries were removed; but when this has been the case, the menstruation has not been the important physiological process it was before. It is simply a species of metro-staxis, resembling epistaxis in its character, and any fibroids of the uterus that exist shrivel up just the same as if the menstrual flow had permanently ceased.

Cervical Catarrh afd Retroversion, with Enlargement and Prolapse of the Ovary.

Our last patient to-day is Mrs. Mary B., 32 years old, and a native of the United States. She has been married ten years, and has had two children, but no miscarriages. Her last pregnancy occurred eight years ago, and she says she has not been well for five years. The chief trouble is pain in the back and abdomen, and she suffers also from profuse leucorrhœa. She is regular as to her monthly periods, and has no worse pain at such times than at others. The headache of which she complains, and which is not constant,

she says does not, therefore, seem to be associated with disorder of the menstrual function. The patient, as you perceive, has the appearance of a perfectly healthy woman; but still she has had something the matter with her in reality ever since her last child was born. Making an examination here, I found the uterus in a state of marked retroversion, and under it there was a round, soft, and sensitive mass. The cervix had a cicatrix upon it, showing that it had been operated on for laceration during labor, and its whole surface was in a state of granular degeneration; the condition being what was formerly called ulceration of the cervix. The diagnosis is plain. When the last child was born, eight years ago, the cervix was torn through to the vaginal junction. In consequence of this accident the uterus, instead of undergoing normal involution, remained in a state of subinvolution, as it is called, and on account of its unnatural size and weight became retroverted. The laceration of the cervix, by the exposure of the glandular structure of the part which it caused, gave rise to a constant ichorous discharge, which was poured from the torn surfaces, and which was similar in character to the irritating discharge which flows over the upper lip of a child suffering from chronic nasal catarrh. This condition of affairs has in time affected one of the ovaries, and the organ, enlarged and in a state of irritation, has become prolapsed below the uterus.

Formerly the condition of the uterus here met with was called chronic metritis. This was cutting rather than untying the Gordian knot; but now we try to untie the knot.

The uterus, after being torn during labor, suffered from subinvolution, which gave rise to a chronic hyperplastic condition, with catarrh of the cervix. The retroversion is simply a symptom. In treating such a case, the first thing to be done is to restore the laceration of the cervix by operative procedure, and this has already been successfully accomplished here. We must then restore the uterus to position, and apply appropriate local treatment to the granular cervix.

—In the *Lancet*, January 17, 1885, Dr. T. Wharton Jones publishes an article entitled "Remarks on the Circulation of the Blood." Historical notice of the discovery that the veins of the bat's wing, which are furnished with valves, are endowed with heart-like rhythmical contractility, whereby the blood is assisted onward in its course to the heart. A protest against efforts made to ignore a crucial fact in nature."

Communications.

THERAPEUTIC ACTION OF COCAINE IN A CASE OF DIPHTHERITIC CONJUNCTIVITIS.

BY WILLIAM S. LITTLE, M. D.,

First Chief Clinical Assistant, Eye Department of the Jefferson Medical College Hospital, Philadelphia.

The use of muriate of cocaine in a case of diphtheritic conjunctivitis has afforded an opportunity of observing a therapeutic action of the drug on the inflamed mucous membrane of the eye and the tissue underlying it, similar to the influence of the drug, observed on the inflamed mucous membrane of the nose, which was first reported by Dr. F. H. Bosworth, of New York city, "A new therapeutic use for cocaine, as to its influence on the nasal mucous membrane."* The freedom from hemorrhage when operations on the eye are performed, the drug being used for its local anæsthetic effect, indicates a therapeutic action very valuable when the conjunctiva is inflamed. The severe type of inflammation associated with purulent, gonorrhœal, and diphtheritic ophthalmia calls for a radical reduction of the œdematous lids and chemotic conjunctiva; so as not only to prevent pressure on the cornea and infiltration of it, but also to enable the lids to be everted for the thorough cleansing of the conjunctival sac and application of remedies. A division of the outer canthus heretofore has frequently been required in such cases to accomplish these purposes. The history of the following case and method of treatment illustrate the therapeutic action of cocaine in reducing the œdema of the lids and chemosis of the conjunctiva. The type of the inflammation existing in the mucous membrane of the eye of the case observed, this deposit rarely exhibiting itself at this portion of the tissue, and the good result obtained by the use of cocaine, suggest the value of its use when the mucous membrane of the throat is similarly affected, as is so frequently the case.

When intra-ocular disease is accompanied with chemosis of the conjunctiva and œdema of the lids, the use of cocaine will be found to have a like effect, as in the case to be described, and as has occurred in my practice.

A very successful result has followed the employment of the drug in manipulating the canals of the body covered with mucous membrane, but the claim for the use of the drug has been largely for its anæsthetic effect, and not so much for its therapeutic action on the tissues, namely, reduc-

*The Medical Record, November 15, 1884.

ing the œdema of the tissues underlying the inflamed mucous membrane.

A case of severe conjunctivitis was seen at the Eye Department of the Jefferson Medical College Hospital on December 18, 1884, in a man aged thirty-seven, stating that on December 16 the lower lid of the right eye became slightly swollen.

December 17, the eye felt as if a foreign body was in it; when seen, the upper and lower eyelids of the right eye were markedly œdematous, chemosis, and ecchemosis of ocular conjunctiva, especially below, secretion from the palpebral portion of it, cornea clear, iris normal; had suffered no constitutional disturbance. A case of gonorrhœal ophthalmia was judged to be developing, though contagion from such a source was denied. The patient was informed of the severe type of the disease, precautions as to protecting the other eye, and danger of infection to others. A weak solution of silver was applied, atropia instilled, and ice-cold applications to be employed, the eye to be kept free from accumulated secretion. Absorbent cotton was used for cleansing the parts, as it removes the secretion so easily, and can be immediately destroyed by burning; pads of it laid on ice render the cold application easy for the patient and very effective, where this is constantly required.

December 19. The patient was unable to leave his bed, and sent for me. Found he had vomited during the night, had a hemorrhage from the nose, a high fever, and depressed condition. Pain was very severe in the right eye; lids very œdematous, conjunctiva chemotic, secretion from the lids not profuse, but a membrane had developed on the upper and lower lids on the conjunctival surface; cornea clear. Any attempts at manipulating the eye were very painful; upper lid could not be everted. While waiting for medicines, the use of a two per cent. solution of cocaine was decided upon, so as to relieve pain and allow the handling of the parts; a few drops instilled between the lids accomplished this in five minutes; but the most marked and interesting feature resulting from the use of the drug was the influence upon the œdematous lids; at the middle of the lower eyelid a depression occurred in the tissues, as if pitted with the finger, gradually increasing in area, so that in the twenty minutes from the time the drug was employed the upper and lower eyelids were free from the œdematous state; the same impression was made on the ocular conjunctiva, especially below where it was most markedly chemotic and infiltrated with blood. Applications to the eye were made with hardly any objection on the part of the patient. The severe constitutional symptoms called for appropriate remedies.

The following day, the œdema of the lids was found not to have returned; slight chemosis of conjunctiva, cocaine being used twice to relieve the pain and allow sleep. Carbolic acid, one grain to the ounce, was used as a wash; a stronger solution, five grains to the ounce, which has been recommended by Dr. G. H. Burnham,* of Toronto, in the gonorrheal and diphtheritic types of conjunctival inflammation was found to be too irritating and painful. The left eye was free from trouble, and protected by a bandage.

On the fifth day the cornea was slightly cloudy; on the sixth day became infiltrated, perforating at its outer margin, aqueous humor escaping; the cornea to the inner side became so symmetrically swollen and globular, that I thought the crystalline lens might have ruptured its capsule and escaped into the anterior chamber. Prof. Wm. Thomson saw the case with me, suggesting eserine in place of atropia and lime-water, as a wash. The constitutional symptoms were still very marked.

Dr. Morris Longstreth kindly examined a portion of the detached membrane from the right lower eyelid, finding the microscopical picture characteristic of a diphtheritic membrane, and not of a gonorrhœal type. The membrane became less distinct after the eighth to the tenth day, the tissue bleeding when touched. After the cornea became involved cocaine was discontinued, desiring all the blood possible to reach the cornea for its maintenance, hot water at the time was not acceptable to the patient, but in a day or two was found to be more desirable, as the conjunctiva became less inflamed.

December 29th I found that during the night a temporary nurse had given the patient ten drops of a two-grain solution of eserine in place of iron, despite proper labeling of the bottle and instructions of the regular nurse to give the patient nothing.

Dr. Dennis, who saw the case very shortly after the dose of eserine, $\frac{1}{24}$ of a grain, states that the spasm of the lids was severe, slight twitching of the mouth and slight movement of the hands, but no severe constitutional disturbance; chloral was given. On the following day I found that the left eye, which had been free from trouble, was affected in the following way: Swelling of

*The American Journal of Ophthalmology, November, 1884.

the lids at the inner canthus, some pus present, slight chemosis in ciliary region to the temporal side; the pupil showed no evidence of eserine; leeching and cold applications prevented any further effects. The severe spasm of the eyelids had no doubt forced material from the right eye into the nose and up the left lachrymal canal, into the left conjunctival sac. If the case had been of a gonorrhœal type, severe infection of the eye would no doubt have followed, the escape was no doubt due to the subsidence of the diphtheritic condition of the right eye, and the abatement of the constitutional symptoms. Atropia was kept in the left eye for some time.

The patient was in bed for three weeks. During the third week the right eye gradually improved, being twice leeched. The sloughy comatose condition of the cornea decreasing under pressure, and the cornea clearing; anterior and posterior synechiæ are present.

At the end of a month, find right eye free from any conjunctival secretion, ocular conjunctiva slightly congested, a central ulcer of cornea, with synechia rapidly healing. Left eye is free from irritation, is hypermetropic, 2 D., ophthalmoscopic picture normal.

An entire loss of the eye is the rule in these cases. The saving the eyeball in this case was no doubt due to the impression made on the œdematous lids so early in the case, and the reduction of the chemotic conjunctiva, which has heretofore been largely controlled by leeching. The case demanded, during its violence, the constant assistance of a nurse.

January 31, 1885, 215 *South Seventeenth street, Philadelphia, Pa.*

CASTRATION FOR HYSTERO-EPILEPSY. (BATTEY'S OPERATION.)

BY J. G. BROOKS, M. D.,

Of Paducah, Ky.

Mrs. McN., of an exceedingly nervous temperament, aged 27 years, has borne three children, and had one abortion at two months. I attended her in last confinement, November 18, 1880. Labor was very rapid, lasting not over an hour from first symptoms. She had but two real expulsive pains, and the child was delivered while she was in a convulsion.

I attended her at intervals for minor complaints from this time until July, 1882, when I was called to treat her for uterine hemorrhage. I found the womb enlarged, with the cervix and os extensively eroded. This condition I treated with compound tincture of iodine and cotton pessary saturated with glycerine. Had her use also the hot water douche twice a day. Under this treatment the womb reduced in size and the erosions healed rapidly, but she would have a profuse leucorrhœa a few days before and subsequent to the menstrual period.

From this time she began to suffer great pelvic distress with pain in ovarian region. This increased until it was a decided oöphoralgia.

She would have these attacks at irregular intervals, which were always preceded by a very great desire to copulate. This desire became more and more intense, until it amounted to nymphomania, and would be followed by regular hystero-epilepsy of the worst form.

This state of affairs with her was unchanged until January, 1883, during which month she was free from all of her annoyances, save the venereal appetite, which was nearly uncontrollable.

February, just before the menstrual period, the pain became very intense in the ovaries, and passed off with the most severe attack of hystero-epilepsy I ever saw. A large dose of morphine and atropia put her profoundly to sleep; and when she awoke, the flow had come on and she was easy for a few days. From this time on she would have nymphomania, oöphoralgia, and hystero-epilepsy, until July, 1883, when she had a free menstruation, and felt some improvement until August, just before her period, when she had an explosion, as it were, of all the old symptoms, but in a more aggravated form. At this period she failed to menstruate and soon began to show enlargement of abdomen, which caused some of the scandal-mongers to make inquiries if all were right. She was interrogated as to the chance for her to be pregnant. She avowed there had been no chance for her to have gotten in any such condition, and was perfectly content to wait and let time prove her clear of the charge.

From this time until the following February and March I did not see her often, as she had learned to use the hypodermic syringe and to ward off these attacks of oöphoralgia, hystero-epilepsy, etc., by the free use of morphine.

In February, 1884, she became very much worse, and I was sent for to see if I could not do something for her. I found her as I had left her in August, only worse, from a broken-down constitution—I might say, a perfect wreck from the use of morphine. There was no use of attempting to withdraw the opiate at this time, for the pain was so intense when she was not narcotized

that there was no such thing as bearing it. I now advised the removal of the ovaries, and she readily consented, but preferred waiting until spring.

She continued the morphine, enlarging the dose from time to time until she was taking twenty grains *per diem*.

I left home the latter part of April for New York, on my way to Washington to attend the meeting of the American Medical Association. While I was in New York, I was invited by Dr. T. G. Thomas to see him operate on a similar case. I was allowed not only to see the operation, but also to see the wound dressed and the patient put to bed; all of which gave me additional knowledge and confidence, which was of great value to me when I came to operate.

Soon after my return I made ready to operate, and on the 18th of May, 1884, Sunday, between 11 and 12 o'clock, the time set by my patient, I performed laparotomy in the presence of Drs. Saunders, Maxwell, Becker, Thompson, Rivers, and Wheelis, and assisted by Drs. Kay, Davis, and Cowgill. After the patient was thoroughly under ether, an incision three inches long was made in the median line, the peritoneal cavity readily entered, the ovaries exposed and found to be normal in size. I will state just here that I had repeatedly failed to feel either ovary, notwithstanding the abnominal walls were very thin. The ovaries were removed, with the tubes, after Mr. Tait's plan.

The silk ligature was used, the stump cut close and returned into the abdomen. Very little blood was lost. The peritoneal cavity was cleansed, and the abdomen closed with silver sutures, the wound dressed, and patient put to bed before the clock struck 12.

She came from under the anæsthetic readily, with but little nausea, and felt very comfortable, slept well the following night, and was free from pain. We continued the usual amount of morphine for a few days, but soon began to use less, finding that it could be done without inconvenience. At no time after the operation did the temperature go above 99½°, pulse 96, respiration normal.

On the fifth day one-half of the sutures were removed, and on the sixth all were taken away, and union was found to be perfect throughout the wound.

At no time did she have any tympanites. Her improvement was continuous and perfect, and on the twenty-fifth day after the operation she went driving. From this time on, the morphine was rapidly withdrawn, until, after about ten weeks, the syringe and morphia were taken away. During the seventh week she suffered with gastralgia together with decided hysterical symptoms, which were not controlled until the cold-water douche was suggested to me by my friend Dr. Rivers. I orderered that when these hysterical manifestations presented, she be stripped and set in a a tub, and a stream of cold water be poured down her back until relieved. She bitterly opposed this measure, but she got the douche as directed. She had but a few spells afterwards. She has been perfectly well since August 1, 1884, and had no morphine.

Since the operation she has had no leucorrhœa, no venereal excitement, or any other annoying symptoms except hysteria at the time above mentioned.

The antisepsis used at operation consisted in the thorough cleansing of the hands of those to handle instruments, and the wound. The silk, instruments, sponges, etc., were washed in carbolized water, and the wound was dressed with corrosive sublimate, cotton and gauze.

Dr. Wilhelm Tauffer, of Buda-Pesth, after reporting twelve cases of castration operated upon by him, says in his conclusions, that castration, with proper care, is not attended with any great risk; that both ovaries should be removed, even if the disease be limited to one, lest the remaining gland become diseased in the same way as its fellow; that it is generally desirable to remove the tubes with the ovaries; that hystero-epilepsy is curable by castration; that it is an open question as to how far disease of the female sexual organs influences the development of certain psychoses, and whether such psychoses are curable by castration; that the condition laid down by Hegar, that the ovaries should be distinctly felt before their extirpation is attempted, is an impracticable one.

Dr. Robert Battey, of Rome, Ga., reports in the August number, 1883, of the *Virginia Medical Monthly*, ten castrations, with eight ovariotomies, performed by him, and not an unsuccessful case. All, or nearly all, of his castrations were for öophoralgia, nymphomania, hystero-epilepsy, insanity, etc., one or more of these symptoms attending each case.

This case of mine is reported for what it may be worth to statistics or otherwise. From the results I can claim this much: (1) That it goes to prove that öophoralgia, together with the associated psychoses, are curable by the removal of the ovaries. (2) It goes also to prove that the teach-

ings of Hegar, viz., that the ovaries should be distinctly felt before the operation, should not, necessarily, be heeded.

Then, aside from the operation, we prove that the opium habit can easily be broken up, after all physical suffering has been removed; especially is this true if we can get the hearty coöperation of the patient, as I did in this case.

HOSPITAL REPORTS.

LECTURES ON INSANITY.

Delivered at the University of Pennsylvania,

BY CHARLES K. MILLS, M. D.,

Lecturer on Mental Diseases in the University of Pennsylvania; Consulting Physician to the Insane Department of the Philadelphia Hospital; Neurologist to the Philadelphia Hospital; and Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic.

Reported by WILLIAM H. MORRISON, M. D.

LECTURE II.

Hallucinations—Illusions—Delusions—Imperative Conceptions and Morbid Propensities—Insanity of Manner—Moria—Incoherence—Delirium.

GENTLEMEN: Before taking up the various forms of insanity, I wish to call atfention to a few points in general symptomatology. Of course, much time could be occupied in a consideration of this topic, but I shall discuss only a few of the more important general symptoms; some of those which it is necessary to understand, in order to have clear ideas when considering the special forms of insanity.

I shall then first briefly treat of the hallucinations, illusions, and delusions of the insane.

It is difficult to define the terms which are used in the study of mental diseases, for the very reason that the terms themselves indicate, really or apparently, paradoxical conditions. Thus an hallucination has been defined as an unreal sensation. It is a false perception of the senses. The individual believes he sees something which does not exist in fact; or he mentally hears, tastes, touches, or smells something which has no physical existence.

An illusion is a perverted sensation or a perverted perception—a false interpretation of a real sensorial perception. Something which has a real existence is supposed by the victim of illusion to be something else. The sound of thunder is interpreted to be the voice of God, not in a figurative, but to the individual in a real sense. In the same way a post of wood may, from its color or some other peculiarity, be regarded as a piliar of gold.

A delusion is, in general terms, a false belief. This statement is, however, far from giving you all the knowledge that you require in reference to the definition of a delusion. An hallucination may or may not be a delusion, and the same may be said of an illusion. That is to say, any one may have an hallucination which he recognizes as such, and it therefore does not become a delusion, because he does not persistently believe in it, or perhaps not at all, except at the moment of its first appearance before him. I shall give some of the different forms of hallucinations, illusions, and delusions.

A man has an hallucination of hearing, who supposes that he hears a voice threatening to destroy him. This is a common form of insane hallucination. Another hears a celestial voice. Another is touched or affected, it may be, by what he terms electricity; he has that peculiar sensation which in the popular mind is associated with electricity; he feels an electric shock. This is another common form of hallucination. Occasionally all the senses may be involved in the hallucination, but this is rare. A woman may hear the voice of her persecutor, she may imagine that she sees him in the twilight, that a peculiar sulphurous odor is emitted by him, and that she tastes poison which has been placed in her food and drink. Commonly the hallucinations affect a single sense or two or three together.

A notional delusion is one unconnected with the senses, that is, one which involves neither an hallucination nor an illusion. Thus, a man imagines that he is Jesus Christ, or a woman holds that she is the Queen of America, or the wife of Lafayette. Another imagines that he is made of glass, or that his legs are of cork or lead. Sometimes the delusion has reference to what is supposed not to exist. Some important organ may be believed to be absent.

Clouston gives a series of the delusions which he found in about one hundred female patients, the most of which I will repeat for you. Their simple repetition will give a good idea of the varying character of the depressive delusions of the insane.

They were delusions of general persecution, of general suspicion, of being poisoned, of being killed, of being talked about, of being defrauded, of being pregnant, of being destitute, of being very wicked, of imminent death, of the soul being lost (which is not an uncommon form of delusion in melancholia), of having a bone in the throat, of having lost much money; that she was about to be buried alive, that she was about to be murdered, that the flesh was boiling, that the head was severed from the body, that murders took place around her, that she was tempted by the devil, that she was possessed by the devil, that she had committed the unpardonable sin, which is another common form of melancholic delusion. Other delusions were of identity being lost, of being covered with vermin, of letters being written about her, of property being stolen, of children being killed, of the legs being made of glass, of being chloroformed, of having committed murder, of being cut up, of being a man. Sometimes the reverse is true, and a man imagines that he is a woman. A well-known case of this kind was in the Philadelphia Hospital for a long time. The man believed that he was a woman, and insisted on dressing as a woman, and at the balls always danced with the men. Still other delusions were, of having contracted venereal disease, of being confined for debt, and of having committed suicide.

A delusion may be a sane delusion or an insane delusion, and this distinction often involves very

important questions. Thus the question of legal responsibility for murder might depend upon the decision whether a delusion was sane or insane. A sane delusion is simply a false belief, out of which the patient can, by ordinary means, be reasoned. Not long ago, I had a good illustration of a sane delusion. A patient came to my outdoor hospital service—a woman who had been depressed in health for some time. She told me that she saw sights at night on lying down, and she described with great particularity the appearance of an animal, which rose up before her. She also told me that it appeared more vividly on getting into a certain position. She knew that it was unreal, and was able to reason herself out of it. She described the animal with such detail, and was so honest about it, that there could be no question about her having seen it. The delusion always remained a sane delusion, and under treatment she recovered.

An insane delusion is defined by Spitzka as "a faulty belief, out of which the subject cannot be reasoned by adequate methods for the time being;" by Kiernan as "a firmly-fixed, baseless belief, whose inherent falsity can be demonstrated." These are two of the best definitions of which I have knowledge.

Occasionally, insane patients will be met with who can temporarily be reasoned out of and made to see that they are the victims of a delusion, but will again pass back into the delusive state. A patient will sometimes, for a purpose. say that he knows that he is laboring under a delusion, insane though he be. Thus we read of a patient who was put under a shower-bath for a short time, then brought out and asked if he still believed that such and such things were so. The patient replied that he did. He was ordered back to the shower-bath, and the same process was repeated, until at last his faith, *apparently*, *at least*, became weaker, and he acknowledged that he no longer held the ideas which he had previously entertained. Certain points will help in determining whether a delusion is insane or sane. It is necessary to compare the individual with himself in studying the question as to the existence of an insane or sane delusion. An insane delusion is usually adhered to vigorously and vehemently, in spite of all the reasoning that can be brought to bear.

The terms genuine and spurious delusions are applied by Spitzka and others to explain different forms of delusions among insane persons. A genuine delusion is one which the insane patient firmly holds, that is, one which is part and parcel of the insane condition, and has been created by the patient himself. A spurious delusion is one which is imposed on the patient, or one which he imitates or assumes. A very erroneous notion is that which many physicians, and more lawyers and laymen, hold—that an insane man cannot simulate insanity, that he cannot even simulate delusion, and yet be insane. A grandiose, paretic dement put into a ward with a number of other patients will sometimes have gathered around himself a number on whom he has, temporarily at least, imposed his own delusions.

Delusions are systematized or unsystematized. Next to the recognition of the difference between sane and insane delusions, the question whether a delusion is systematized or unsystematized, is in the present state of the science of psychiatry of the highest importance. The Germans in particular have paid attention to this matter. Spitzka, among American writers, has most clearly expounded the difference between systematized and unsystematized delusions, and to him I am indebted for most of the views here expressed on this subject. If you examine the older psychiatrical writers, you will find no reference to this matter. This question of systematization is now a clearly defined point in the study of this branch of medicine. At the same time, I do not wish you to be misled into the idea that a delusion that is systematized can always be easily separated from one that is not. A delusion which is systematized is one that the patient explains, elaborates, or defends. It is one that has a certain appearance of logic about it. It is really, however, pseudo-logic. It is a delusion which has a more or less complete organization, and which is held more or less persistently.

An unsystematized delusion is one which has no organization. The general features of a systematized and unsystematized delusion may be the same; that is, they may both be of a depressing character as in melancholia, or of an expansive character as in some varieties of mania, but the unsystematized delusions are delusions that the patient cannot explain, which he does not attempt to defend, and for which he gives no logical, illogical, or pseudo-logical explanation. A paretic dement tell you that he is worth $150,000, as in a case which I saw a short time ago. I said to him, "My man, if you are worth so much, why do you not live in better style?" He could give no answer. A paretic dement, again, may tell you that he is the most important man in this city, and that anything that he says will be done; but if he is asked why he does not use his power, he will branch off into something else, without giving any reason. He may say that he is one hundred feet high, but when a man of ordinary height stands beside him, he can give no explanation of his evident littleness. So in a case of melancholia, the patient hears the voice of the enemy, now speaking from the wall, now from some other direction. He does not attempt to account for these voices in any special way. He simply hears them, they depress him, and that is all.

A patient with systematized delusions may tell you that he is worth a great deal of money, but he will endeavor to explain how he has made it. If he is asked why he does not use it, he will have an elaborate story about its being in a trust company, and that he is preparing the necessary papers to secure it. If he assumes that he is General Grant, the Emperor of Russia, or some other great personage, he will have certain ideas, and try to perform acts in consonance with his assumed position. A lunatic with a systematized delusion of persecution by voices will explain how these voices reach him. One of the most beautiful illustrations of a systematized delusion that has ever come before the Philadelphia public, was that of a well-known man in this city. For many years this man has been insane, and his is perhaps as clear a case as is to be found in any asylum. This man believes

that he is persecuted by voices, and he supposes that these persecutions are carried on through some electrical or other agency, which is unknown at present to science. In order to defend this delusion, he has written two elaborate and somewhat rhetorical pamphlets. In his pamphlets he refers to the telephone and phonograph, and says that a person who a few years ago would have said that he could hear voices a hundred miles distant would have been considered a lunatic. He does not deny that others do not hear these voices, but he hears them, and he defends his delusion.

Imperative conceptions (and here again I am indebted to Spitzka) are perhaps, strictly speaking, elementary or rudimentary delusions. They cannot be readily defined. They are certain peculiar mental phenomena which gain control over the individual, and which tyrannize him for the time being. These imperative conceptions lead to the performance of acts which are called imperative acts or morbid impulses. Often a monomaniac who for a number of years has had imperative conceptions, may end with a true delusive state. You have the morbid impulse to steal, which gives a special variety of insanity known as kleptomania; or the morbid impulse to set on fire, giving pyromania; or the imperative conception which leads to the morbid impulse to kill, or to commit suicide, etc. These conceptions tyrannize the individual; he can not rid himself of them, and he is forced to commit the acts which he conceives to be imperative under these circumstances.

An imperative conception is only an isolated conception. It is one which exists only for the present, but usually to come again sooner or later. A man to-day may have an impulse to kill, and he may not have it again for years. A morbid propensity persists to a greater or less extent for a long time. It is an exaggeration or perversion of a normal propensity.

These morbid propensities usually consist in a perversion of the sexual instinct or a perversion of the desire for food. Wonderful instances of sexual perversion have been written about in times gone by and also recently. It is likely that many of the frightful murders of which we read are committed by lunatics of this kind, who have some terrible morbid propensity. Such persons violate the person of the women they have killed either before or after the commission of the murder, and not only do that, but cut their victims into pieces. In some cases they have done this and eaten portions of the bodies afterwards. Often bodies are taken from the graves and violated by people with these peculiar perversions. There are other no less horrible propensities of this sort.

Some of the many varieties of monomania are simply mild instances of imperative conceptions or mild morbid impulses. It is, I think, not wise to erect a great variety of forms of insanity upon matters of this kind, but it is necessary to have a general idea of these peculiar manifestations in order to appreciate the cases which we have to present to you.

Kiernan* says, "There are certain terms frequently used though found in but few English text-books, as 'Insanity of Manner' and 'Moria.'" Insanity of manner as described by him, "denotes a condition often a symptom of oncoming insanity in recurrent cases, but most frequently associated with chronic forms of insanity, especially in those patients who carry on a profession without manifesting (to the casual observer) any symptoms. The patient with insanity of manner is likely to make little grimaces without apparent cause, to indulge in motions of the fingers, to use a constrained tone of voice. It is one of those conditions which once seen is easily recognized, but which seems to defy description. Moria simply implies a flight of ideas, and is a very convenient term introduced into psychiatry by the Germans."

Incoherence and delirium are terms also often used in speaking of the insane. Hammond* describes two kinds of incoherence:

1. That in which the words used in speaking or writing are without proper relation to each other.

2. That in which the ideas are without logical arrangement, or are incompletely expressed.

The same author defines delirium as "that condition in which there are illusions, hallucinations, delusions, and incoherence, together with a general excess of inability, an inability to sleep, and acceleration of pulse." Illustrations of incoherence and delirium will be given under special forms of insanity.

*Gaillard's Medical Monthly, November, 1880.

*Op. cit.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A Case of Possible Bony Union after Intra-Capsular Fracture of the Femoral Neck,

was the title of a paper read before the Philadelphia County Medical Society, November 19, 1884, by John B. Roberts, M. D., surgeon to St. Mary's Hospital, Philadelphia, wherein he remarked that much has been said against the possibility of osseous repair occurring after intracapsular fractures of the neck of the thigh-bone. It is probable that this teaching has induced more than two-thirds of the general medical profession to believe that bony union of such lesions never occurs. Careful investigation of cases and specimens by competent surgical observers has conclusively demonstrated that such belief is erroneous.† Bony union does occur, though not frequently. In my opinion, moreover, its non-occurrence is to some extent due to the violent and unjustifiable manipulation to which injured hips are often subjected by reason of the attendant's ignorant desire to demonstrate crepitus and preternatural mobility. The diagnosis can usually be made with reasonable certainty without the development of these symptoms of fracture. Therefore, it is unnecessary and improper to imperil the future usefulness of the limb merely to arrive at an absolute diagnosis. In cases of doubt, it does no harm to

†See paper by Dr. N. Senn, in Trans. American Surgical Association, vol. i., 1883.

treat the case as one of fracture, even if none exist; but violent manipulation, by tearing connecting bands of periosteum or detaching impacted fragments, greatly reduces the probability of union.

Union *may* be bony, and the function of the joint perfectly or almost perfectly restored: if not bony, the bond of union may be a very short fibrous one, giving as good functional result as osseous repair. Hence, the surgeon should treat his cases as if he expected a good cure; for it is impossible to say that a given patient is one in which no attempt at union will take place. Non-union of intracapsular fracture of the hip is, it is true, often found. I have in mind now a case where the autopsy showed no attempt at even fibrous union. Let us not expect this, however, as a rule, for we may thus be led to neglect proper therapeutic measures. Specimen No. 1130[15] of the Pennsylvania Hospital Museum, taken from the patient referred to above, between eighteen and nineteen weeks after the injury, is a good illustration of non-union. It was a transverse fracture at the junction of the head and neck of the bone. Specimen No. 1130[20], from the same Museum, on the other hand, is here shown you; it is described in the Museum catalogue as an intracapsular fracture firmly united; and by longitudinal section shows bony union. The specimen belongs to Dr. T. G. Morton, and was removed from a patient, aged sixty-seven years, twelve years after the accident that caused the injury. There is some evidence of impaction near the base of the neck; and it is perhaps *possible* that part of the line of fracture extended without the capsule. Of this we have now no definite evidence, as the ligaments were removed in preparing the specimen. This cast of a specimen is from the Mütter Museum of the College of Physicians, and represents an impacted fracture of the femoral neck in which there was *inversion* of the leg. The patient was under the care of Dr. Conklin, of Ohio.

I have made these prefatory remarks to introduce the clinical history of a patient who has now good use of her limb subsequent to an intracapsular fracture, although treatment was abandoned shortly after the receipt of the injury. She has probably a short fibrous union; possibly a true bony one. In either event, however, the result is gratifying, and teaches that such cases should not be looked upon as necessarily hopeless in respect to union.

She is a German, 78 years old, and was admitted to my ward in St. Mary's Hospital on August 30, 1884, after falling from a street car. The resident surgeon believed there was no fracture at the hip; but on my visit I considered that the position of the limb and the patient's age pointed to intracapsular fracture of the neck of the femur. On taking hold of the leg and making rotation without violence, I felt distinct crepitation. At once desisting from further manipulation, I ordered permanent extension by weights, and lateral support by sandbags, to be the treatment. Within four days, incontinence of urine, the development of a superficial bedsore, and the debilitated condition of the patient, showed me that there was danger of the aged woman dying. I accordingly ordered the resident surgeon to discontinue the fracture dressing, so that the patient's buttocks and back could be kept clean, and the bedsore properly dressed, telling him that no union of the fracture was likely to occur, and that we must endeavor to save life by tonics, stimulants, and food, and the prevention of further bedsores. I gave a similar prognosis to my polyclinic pupils who saw the case. Ten days later, that is, two weeks from the time of injury, another incipient bedsore was noticed on the buttocks. The hospital notes of this date say I ordered that change of posture be frequently made, and that she sit up as soon as possible. Six days subsequently she was sitting up in a chair. I am unable to say whether she got out of bed previous to this date or not. The bladder symptoms gradually improved, she soon sat up all day, and on October 4, five weeks after admission, it is recorded that she was walking on crutches. On October 26 she was able to walk a little *without* crutches, though she did not do so much. She continued to gain in activity until her discharge on November 2.

The result was so unexpected to me, for no restraint of motion at the hip was attempted after four days, that I almost mistrusted my diagnosis, and concluded that possibly the resident surgeon's original diagnosis was correct. I had made no investigation of the condition of the limb since she began sitting up. A few days before her discharge, however, I put her in bed, and with my colleague, Dr. Keen, examined her. The leg was strongly everted, as in intracapsular fracture, immediately after the injury, and she was able to invert it only so far as to make the toes nearly vertical. She could raise the leg, however, and lay it across the other, or carry it outward; and, indeed, appeared to have every motion of the joint, except full inversion, though she stated it was a little stiff when walking. She had no pain. The everted leg, therefore, made the correctness of my diagnosis an established fact. Here, then, in a woman of 78 years, was obtained union and a useful limb, despite the absence of treatment. In the face of such a result, treatment should always be attempted, and not abandoned unless circumstances, such as arose here, demand its discontinuance. Well-directed treatment may certainly be expected to make many good cures, if no treatment will occasionally give so excellent a limb.

DISCUSSION.

Reported by G. Betton Massey, M. D.

Dr. O'Hara: "I assent to the views put forth by Dr. Roberts. I recall a case of a gentleman of 79 years of age, injured on a railroad car in motion, moving his body at the same time to get out on the platform.

"A distinguished surgeon pronounced it as hopeless for cure, and, as the patient was so aged, advised nothing to be done for the repair of the fracture. It was diagnosed by both of us as an intracapsular fracture.

"Sand-bags and extension were applied. The patient readily co-operated, and barely moved for eight weeks. He had good health, though so old, and to my astonishment he walked in eight weeks without a crutch. There was very little difference to be noticed between the two limbs, except a slight eversion of the affected one. He

used the limb without any trouble until he died, seven years later. The man, for his age, was remarkably healthy, and this might have been other than a fracture of the neck, but those present examining it at the time could make no other diagnosis."

Dr. John H. Packard: "From Dr. O'Hara's statement as to the shortening in his case, I should scarcely think him warranted in claiming it as probably one of bony union of an intracapsular fracture.

"I regret that I came in so late as to miss the report of Dr. Roberts' case, and the earlier portion of his remarks upon it. The subject is one which has greatly interested me, and I have examined with care all the reports of cases claimed as bony union, and all the specimens accessible to me. [Dr. Packard then illustrated by diagrams on the blackboard the structure of the neck of the femur, as shown on vertical section.] In all cases of fracture wholly or partially extracapsular, there is a long point or spur of bone, extending down close to the lesser trochanter. When such degeneration takes place, the stricture becomes weaker and less marked, and there is a certain amount of fatty change; under these circumstances the bone may give way even under slight stress, near the head, and across the axis of the cervix. Now all the cases claimed as of bony union of fracture of the neck of the femur within the capsule, with one exception, are open to the explanation that the fracture was really in part extracapsular; and that the lower portion of the cervical fragment, after union had taken place, became absorbed, so that the head sank down against the intertrochanteric portion of the distal fragment.

"The exception was in a specimen presented by Dr. J. M. Adler, in 1869, to the College of Physicians of Philadelphia; it was referred to a committee consisting of Dr. A. Hewson, Dr. John Ashhurst, jr., and myself, and we decided, after careful study, that it was an example 'of genuine bony union of an impacted intracapsular fracture of the cervix femoris.'

"A year or two since I had the opportunity of examining one of the specimens claimed by the late Dr. R. D. Mussey, of Cincinnati, as of this character, and found the long point of bone, above described, still distinctly marked.

"With regard to treatment of fractures of the cervix femoris, I think we are seldom justified in leaving the cases to nature; only, in fact, when the age and debility of the patients, the occurrence of bed-sores, and the restlessness sometimes met with in old people, make the chance of a good result too small to warrant subjecting them to the discomfort and even risk of confinement with extension.

"Some years ago I exhibited to the Academy of Surgery a man who, when sixty-two years of age, fell backward over a pile of boards, fracturing the neck of the left femur. He was tractable and of fairly temperate habits; I treated him at his home, with extension by weight and pulley, and after the first week made him sit up daily in bed. Although I told him he would probably remain always a cripple, he recovered completely, and walked well, even up and down stairs, at the fourteenth week. When brought before the Academy, he had no limp whatever, and could stand on or move either leg indifferently; there was actually nothing, except slight perceptible thickening, to show on which side the injury had been.

"About ten years ago I was called to a young man of about twenty, who had been thrown from the high driving-seat of a wagon, and sustained a fracture of the neck of the thigh-bone. Dr. Nancrede, who aided me in the dressing, and myself, determined the nature of the injury under ether. The man recovered so that within two months he was driving his wagon, as well as ever.

"I think that, while we can never confidently promise much in these cases, we ought never to despair, and never be satisfied with anything less than the best attainable results. Unless the unfavorable conditions before mentioned are present in a most decided degree, an attempt should always be made to institute effective treatment."

Dr. Levis: "I think Dr. Roberts a little too confident of our ability to make a differential diagnosis in these cases. It is certainly sometimes impossible to do so without making the manipulations which he condemns. In obscure cases, when a diagnosis is important, I place the patient with the face down, and carry the limb back as far as it will go. Normally, this distance is but slight, but fracture of the neck of the femur allows much greater motion. It is with regret that I put a patient through this manipulation. The best method to make a differential diagnosis between the two forms of fracture, is by rotating the limb. Normally, the great trochanter rotates in an arc with a radius of the full length of the femoral neck; if there is intracapsular fracture, this radius is but slightly diminished; while there is scarcely any radius in extracapsular fracture, because the centre of rotation is the long axis of the femoral shaft."

Dr. Packard: "I feel bound to protest against the employment of needless force, or, indeed, of any violence or rough handling, in the diagnosis of fractures. In the case of the hip, if crepitus is once elicited, that should suffice; there should be no further testing nor demonstration of it, lest the fragments be brought into worse position."

Dr. Levis: "I never feel assured of the real lines in any case. If the cause is trivial, and there has been no fall upon the trochanter, it is probably intracapsular. If there has been a severe fall upon the trochanter, it is highly probable that it is extracapsular. I do not recall what was my feeling on this point in the case Dr. Baldwin alluded to, but from his remarks would say it was extracapsular."

Dr. Addinell Hewson: "I have had experience with both intra- and extracapsular fractures, and have a very good specimen of bony union that was my father's.

"In a case at the Pennsylvania Hospital, I first demonstrated the value of the contrivance known as the "Lover's Telegraph," for conveying the crepitus to the ear. I have used it frequently, and am satisfied that many cases can be demonstrated by it otherwise difficult of recognition. The surgeon is in too great a hurry usually. In a majority of cases we may have union with some shortening, by using N. R. Smith's anterior splint, keeping the limb so suspended in a semi-

flexed position at both hip- and knee-joints, and allowing the patient to move in the bed without danger of disturbing the coaptation of the fragments or the occurrence of bedsores."

Dr. W. S. Forbes: "The point alluded to by Dr. Levis—the radius of the arc of rotation—is important. An illustration of its value occurred under the care of the late Dr. Joseph Pancoast, when he diagnosed intracapsular fracture in a young man of 27, owing to a lessening of the arc of rotation on one side. The other surgeons present at the consultation doubted it, having in mind Sir Astley Cooper's saying that he had never seen a case occurring under 30 years of age.* The man died in a week, of mania-a-potu, and the specimen is now in the museum of the Jefferson Hospital, showing fracture of the neck within the capsular ligament."

Dr. Packard: "I think that Sir A. Cooper must have been aware of Mr. Stanley's case, that of a boy of 18, which occurred at St. Bartholomew's Hospital about 1830." †

Dr. A. V. Meigs: "I recall a case, treated by Dr. Levis, at the Pennsylvania Hospital, three years ago. The patient now walks without a stick. She is 90 years old."

Dr. Roberts, in closing the discussion, said: "The discussion this evening shows us that the result of treatment of this accident is much more favorable than has been heretofore taught.

"I am glad to know that Dr. Packard believes in the occasional occurrence of bony union. In such cases bony union probably results because the periosteum covering a portion of the neck is untorn or because the fragments are impacted. If there is impaction, you of course have bony union favored for mechanical reasons.

"The third point I wish to make is that it is shown, by the possibility of impaction and untorn periosteum, that violent manipulations for differential diagnosis should not be allowed. Should I suffer from a personal infliction of the accident, there would be a very small amount of handling done by my attendant, if I were able to remonstrate."

Meeting December 17, 1884.

Dr. Joseph B. Potsdamer reported

A Case of Poisoning from Thirty Grains of Chloral Hydrate.

J. R., æt. 43, in moderately fair health, has for the last three years been a victim of insomnia, caused by business troubles. For the relief of the sleeplessness, he used the bromide of potassium, until marked bromism was produced, and he was advised by a physician to discontinue it. This was about a year ago. He then began to take chloral hydrate. He would buy ten cents' worth of the drug, which, I am informed by several druggists, would be a drachm. This quantity he would divide into four doses, and take one about once in ten days or two weeks, as occasion would demand. On or about the 5th of October, he bought at a drug-store a drachm of Schering's chloral hydrate dissolved in a half-ounce of water, which was labeled "teaspoonful at a dose." On retiring that night, he took half of the above-mentioned solution, that is, two drachms, containing thirty grains of the drug. This, he said, had very little effect upon him.

On the sixteenth of the same month, he retired at about 8 p. m., taking the remaining portion of the solution, that is, the other thirty grains. About 11 p. m., his wife found him in a profound sleep, and, as there was a rattling of mucus in his throat, became alarmed and sent for me. I reached the patient's bedside soon after. Having been informed of the circumstances of the case, I at once proceeded to examine the patient, and found him in the following condition: Thoroughly unconscious; pupils contracted; respirations shallow, slow, about eight per minute; breathing stertorous; fauces full of mucus, giving rise to the rattling; pulse barely perceptible, was unable to count it; heart-sounds weak, but regular; extreme coldness of face and extremities.

Having understood the family to say the drug had just been taken, I administered twenty grains of the sulphate of zinc in a glass of water, at 11:45 p. m.; applied cold flagellations to the body, and gave strong coffee and whisky.

October 17, 12:15 p. m. Patient not having vomited, gave twenty grains of powdered ipecac in a large quantity of hot water; continued the coffee, and made efforts to rouse the patient; at 12:45 p. m., the emetics operated; this was followed by temporary dilatation of the pupils. 3 a. m. Able to rouse the patient; pupils react slightly to light. 6 a. m. Patient, on being aroused, talks rationally, but drops off to sleep again; pulse perceptible, one hundred beats per minute; respirations normal, eighteen per minute. 1 p. m. Patient sat up for a little while; still very drowsy. 8 p. m. He has been awake since 5 p. m.; complains of headache.

October 18, 10 a. m. Has had a good night's rest, and feels perfectly well. The treatment previously described, excluding the emetics, was continued throughout the night.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting December 26, 1884, Dr. Henry Beates in the chair.

Dr. James B. Walker reported a case of

Ulcer of the Stomach,

which came under his observation at the clinic of the Woman's Hospital, January 13, 1881, suffering from a *third* attack. The first had occurred three years before, and was accompanied by hæmatemesis. After an interval of about a year and a half a recurrence of all the symptoms, except the hæmatemesis, brought her to the clinic, where gastric ulcer was diagnosticated, and she rapidly recovered under treatment. The third attack, the one under consideration, had existed nearly two months before she applied at the same clinic for relief. She was in a condition of profound emaciation and exhaustion, presenting a cachexia

[The Publication Committee have permitted Drs. Forbes and Packard to add the following notes to their remarks in discussion.]

*"It (fracture of the neck of femur) very rarely occurs under fifty years of age; and dislocation seldom at a more advanced period—although there are exceptions to the rule, for I have myself once seen this fracture at thirty-eight years of age, and a dislocation of the thigh at sixty-two." Astley Cooper, Surgical Essays, part ii., page 35, second edition, London, 1820.

†It was published in the "Medico-Chirurgical Transactions," vol. xviii., as read May 27, 1833.

suggestive of malignant disease. The previous history aided in the exclusion of malignancy, and on account of the serious condition of the patient, and the necessity for more than ordinary care, she was admitted into the wards of the hospital.

At first all foods gave intense pain, even in minimal quantity, and water administered in teaspoonful doses was immediately rejected. All feeding by mouth was suspended, and enemata of beef tea alone administered. For twenty-three days not a particle of food was given in any other way. Then milk in minute quantities was tentatively administered, in alternation with minute doses of beef tea, and after three or four days, the stomach proving able to perform its functions without pain or uneasiness, the enemata were discontinued and the patient discharged, her health being completely restored. The medicinal treatment consisted in blistering the epigastrium, the administration of large doses of subnitrate of bismuth at four-hour intervals during the day, and a quarter of a grain of nitrate of silver at bedtime. Inunctions of sweet almond oil were used towards the close.

The author spoke of the value of oil of turpentine in 15 or 20 drop doses in sweetened water at intervals of two hours, in cases of hemorrhage from ulcer of stomach, and mentioned one case in particular where it had apparently saved life when all ordinary methods had not only failed, but seemed to aggravate the symptoms.

Discussion.

Dr. A. V. Scott had used rectal alimentation in a similar case with success. Cinchonidia sulph. in 20 grain doses was given with the food.

Dr. E. E. Montgomery did not hear the whole report of the case, but was reminded by the concluding remarks of two cases seen the previous year. The first was an old gentleman suffering from gastric catarrh and gastralgia—the latter appearing both before and after meals. Under rigid diet the pain after food ingestion was controlled, but that occurring in the empty condition was not lessened. Food was taken frequently. After several months of suffering, the patient was carried off by an attack of pleuro-pneumonia. The post-mortem appearances indicated commencing carcinoma. The kidneys were not granular.

The other case was confined to bed six months, with constant vomiting of food in a sour condition. All food was rejected with equal impartiality. Dr. Bartholow being called in consultation, found evidences of specific lesions, which had been denied by the patient. After using mercurials in vain, however, another consultation developed the suspicion that we had a case of hysterical vomiting to deal with; and, under appropriate treatment, the patient quickly recovered.

Dr. L. Brewer Hall desired to bear testimony to the value of turpentine in hemorrhage of the stomach. The good results of its use are immediate, and it is also of value in pulmonary hemorrhages. The oil of erigeron may be used instead, and is more acceptable to the taste.

Dr. Henry Beates, Jr., asked Dr. Walker if he still looked upon the micaceous appearance of the skin as an evidence of carcinoma, and if so, if it would not have been of service in the diagnosis of one of the cases related.

Dr. Walker, in closing the discussion, said he had seen but two cases with the micaceous skin which were not carcinomatous, one being a case of pernicious anæmia. He looked upon it as only confirmatory. The use of oil of erigeron as a pleasant substitute for turpentine as a hæmostatic, was suggested by the late Dr. Geo. B. Wood, but as the accuracy of taste of the suggestor was doubted, the speaker had taken a dose of it on a patient's complaint several years ago, and had not recovered from it yet.

In the cases simulating gastric ulcer the resemblance is interesting. The dejecta are more frequently sweet than acid in such cases. In unsuspected cases of carcinoma in plethoric subjects, the peculiar appearance of the skin alluded to may be the only indication present of the real nature of the case.

As regards Dr. Scott's case, the course pursued seemed to embody all that was necessary. Total rest of the affected organ is generally sufficient, though bismuth may be useful.

Editorial Department.

Periscope.

A Case of Traumatic Aphasia.*

Dr. B. Bribach reports the following case in the *Archives of Medicine*, December, 1884:

Wilhelmina Müller, a healthy, stout country girl, eight years of age, had her skull fractured on the morning of June 28, by the kick of a mule. She had walked some distance after recovering from a stupor of a few minutes' duration, and I saw her about an hour after the accident happened. She was in a badly frightened and excited condition, but entirely conscious, and walked freely about my office. The fracture was situated in the left temporal region, rather more than two inches long, one-sixth of its extent involving the frontal, the rest the parietal bone. It had the shape of a curve, convex above, as represented in the diagram; the bone below and all along the line was markedly depressed. There was considerable difficulty in disengaging the flap of the cut scalp from between the fractured edges, into which it was firmly wedged, and I did so after giving chloroform. As there were no symptoms of either concussion or compression of the brain evident, I closed the wound by sutures.

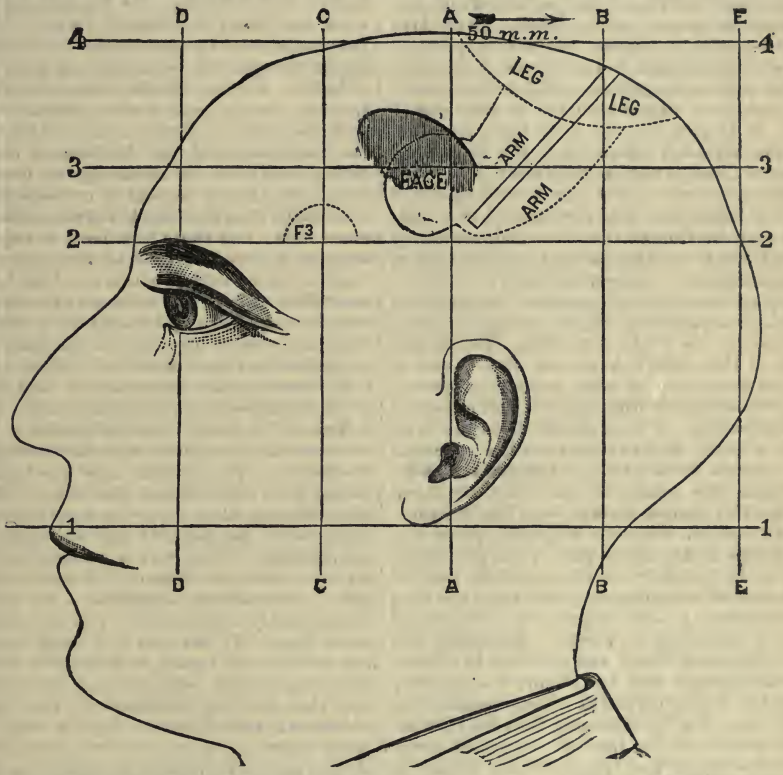
*Dr. Bribach published the substance of this case in the St. Louis *Courier of Medicine* for September, 1884, but the case seems so valuable as to deserve rewriting and illustrating. It may thus secure the full measure of notice it deserves at the hands of neurologists and surgeons.

After the child had recovered from the effects of the anæsthetic, it was found that she lacked the faculty of speech. I ascertained that she had not spoken anything since receiving the injury. A close examination showed absence of paralysis of the muscles of the face, tongue, palate, and limbs. The facial expression was intelligent, and the girl showed evident anxiety to speak, finally making known by signs that she wanted water. Continued efforts to make her speak proved useless, and I directed her father to take her home and keep her quiet, and to induce her to communicate her wants by means of a slate and pencil.

On June 29, twenty-four hours after the accident had occurred, I found the child doing well, excepting the existence of aphasia. Pulse 90, full and moderately strong; temperature normal; coverable anywhere. Patient efforts to make her speak were without result, and I inferred that I had to deal with a case of aphasia produced by pressure on the speech centre. The parents consented to the operation of trephining, which I deemed necessary to relieve the condition and to meet complications by subsequent inflammation. Dr. A. Montgomery, of St. Louis county, who kindly assisted me, concurred in my view of the case, and of the necessity of relieving the compression of the brain.

I trephined the same afternoon, thirty hours after the child was injured, and elevated the entire depressed portion of the skull. The dura mater was not injured, and the inner table of the skull was free from spicula.

June 30. Patient had passed a quiet night, and



I. Lines of Cranio-Cerebral Topography Projected on a Profile of the Head.—1-1. Alveoli-condyloid plane (horizontal); 2-2. Fronto-lamboid line; 4-4. Vertex horizontal. A-A. Auriculo-bregmatic line passing through meatus auditorius, and drawn at right angles to line 1-1; at the top of the skull this line indicates the true bregma. B-B. Vertical drawn parallel to A-A, 50 mm.(2 inches) posterior to it: at its point of impact on the top of the skull this line crosses the posterior end of the fissure of Rolando, the so-called *Rolandic point*. The straight double line extending obliquely from the *Rolandic point* overlies the course of the fissure of Rolando, and is known as the *Rolandic line*. The areas marked off by dotted lines overlie the centres for the leg, arm, face, and for speech (motor function). THE HEAVY CONCAVE LINE WITH SHADING IMPINGING ON THE FACE CENTRE INDICATES THE SITE AND RELATIVE EXTENT OF THE CRANIAL FRACTURE AND DEPRESSION.

appetite and secretions good. She had uttered only one word, "coffee," which she made use of to indicate any of her wants. She had not made use of the slate, but whether from co-existing agraphia, or from lack of training to express her thoughts by means of writing, I was unable to ascertain. No symptoms of paralysis were dis-

taken a hearty breakfast. Pulse and temperature normal. The mother informed me that the girl had slept over eight hours after the operation, and on awaking asked for a drink. In the morning she had again correctly named and asked for some playthings. During my presence the child could not be induced to speak.

July 1. I learned that patient had repeatedly spoken, but seemed to have been confused; she would often call things by wrong names. On removing the dressing, she complained that I hurt her; on this occasion I heard her speak for the first time.

The patient lived four miles from my place; I could see her but once a day, and had no opportunity to closely watch the manner in which the faculty of speech returned. For four or five days there was a certain amount of loss of verbal memory; the speech was rather slow, the articulation perfect, but substitution of wrong names occurred frequently. At the end of ten days, about July 8, she spoke about as well as before.

Surgically, the case progressed very favorably. There was no fever at any time; I allowed the girl to get up at the end of the second week, the scalp-wound being then nearly closed. In the first and second weeks in August, two small splinters of bone were discharged from the wound over the seat of the trephined opening, and I subsequently removed one more, after which the wound closed entirely. It is now covered by a thick cicatrix. The girl has attended school since the beginning of September, and is now as well as ever.

Comparing the seat of the injury with an adult skull, I concluded that the pressure of the fracture had been bearing on the third and ascending frontal and the ascending parietal convolution of the left hemisphere. Subsequent reference to Dr. Seguin's diagrams of cranio-cerebral topography, and exact measurements of the patient's head, showed that in this I was mistaken. The measurements of the child's head are eleven and a half inches from root of nose to occipital protuberance, twelve inches from right to left external meatus auditorius. A line drawn from the true bregma to a point midway between the external angle of the left orbit and the left meatus auditorius crosses the centre of the fracture three and one-quarter inches distant from the bregma. Projections on Dr. Seguin's diagrams place the depressed area on the lower part of the ascending frontal, and but slightly on the posterior part of the third frontal convolution, involving the face centre according to Dr. Seguin, the centre of articulation according to Ferier. Assuming the relative locations of skull and brain to be identical with the patient and Dr. Seguin's diagrams, I can explain the involvement of the speech centre in this case only by assuming that the inferior depressed portion of the fracture exercised some indirect pressure on the speech centre, which is located anterior to the fracture.

Simple Fracture of Skull in Infants followed by Pulsating Tumor.

Before the Pathological Society of London (*Lancet*, January 10, 1885,) Mr. R. J. Godlee read an account of two cases of simple fracture of the skull in infants, followed by the development of a pulsating tumor, and showed some drawings and specimens in illustration. The first case was a female infant, eight months old, that was brought to the hospital the day after a fall of fourteen feet on the side of the head. There had been no unconsciousness or external bleeding at the time; she had vomited shortly after. When seen, there was a large hæmatoma over the right parietal bone, and there was almost complete paralysis on the left side of the body; the reflexes were absent on the left side. There was at at first some difficulty in swallowing. On the fourth day, right-sided convulsions occurred. Next day the paralysis began to improve and the swelling also gradually to disappear. At the end of about a week pulsation was first noticed in the swelling. Three weeks after the injury the hæmatoma was increasing in size and was aspirated, seven and a half ounces of fluid being removed; the fluid was muddy-looking, alkaline, and contained a few corpuscles. In three days another small aspiration was performed, and two days later the swelling was opened, a large quantity of fluid similar to that already obtained came away; likewise some genuine pus. Death occurred next morning. At the autopsy the hæmatoma was found to extend the whole length of the parietal bone. In the middle of it there was a gap in the parietal bone half an inch wide with irregular edges. Brain matter could be seen through the gap, and it was ultimately discovered that there was a direct communication between the hæmatoma and the descending cornu of the lateral ventricle. On removing the bone, the dura mater was found lacerated corresponding to the fracture in the skull, the brain was collapsed on the same side, and there had been a rupture of the temporo-sphenoidal lobe at the upper part that communicated with the interior of the brain as just described. There was extensive meningitis at the base, and arachnitis of the vault on the right side. Mr. Godlee drew attention to the character of the fluid that had been drawn off; there was evidence that it was partly inflammatory and in part derived from the cerebro-spinal fluid. He also referred to the want of correspondence in gravity between the symptoms and the damage done to the brain. The second case was that of a male infant aged five months, that came to the hospital after having fallen on to his head from a height of eight feet. He was cold and collapsed, and had not vomited; there was a hæmatoma extending forwards from the back of the head on the right side. Convulsions appeared a few hours later, being mostly right-sided. The twitchings lasted some days. At the end of a week pulsation was observed in the tumor, and impulse on coughing. The temperature continued at or about normal, but the swelling increased in size, and on the thirteenth and fifteenth days it was aspirated. Very little fluid was, however, drawn off, and the child's general condition remained the same. At the end of two months the child was allowed to be taken home, a shield having been provided to protect the still pulsating swelling. Shortly after this the child was taken to another hospital, where he died in the course of a few days with symptoms of meningitis. On examining the right parietal bone, there was found a large irregular opening, running obliquely downwards and forwards, measuring three inches long by three-quarters of an inch across. At each end of the opening the bone was fissured for nearly an inch. The margins of the opening were very thin, and the absorption of bone seemed to have taken place chiefly at the expense of the outer table. The bone was everywhere very thin, but there were no spots of cranio-tabes. On the other parietal

bone there was an indentation corresponding in shape and size with the above opening; the bone was very thin, quite membraniform, in this region. The symmetry of the lesion of the bone suggested that the child's head might have been squeezed in some way, but there was no history of this. Mr. Godlee pointed out that in the infant the bones of the skull were very flexible, and that they were united by sutures which were soft and permitted of a considerable amount of movement, and further, that the dura mater in young infants was firmly attached to the bones. He thought that these facts would help to explain the different results of direct violence to the skull in the child and in the adult; in the former the force being almost altogether spent upon the part struck.

Pilocarpine in Acute Erysipelas.

Professor Da Costa presented the following case at a recent clinic at the Pennsylvania Hospital (*College and Clinical Record*, January 1, 1885), and made the following remarks:

"I have here a case to show you which I think will interest you, as it brings out rather a novel treatment of erysipelas. I intended to exhibit this to you this morning as a case of erysipelas, but I find that the erysipelas is gone. I, therefore, can only speak of the treatment, which has proved more quickly efficacious than I supposed it would.

"This man, B. K., 32 years of age, a fireman, was admitted only day before yesterday. This is the record upon admission: 'He says that he was quite well yesterday (November 12), but did not go to work, as he was celebrating the election. In the evening, according to his statement, he was not drunk, though he had been drinking a little, and became engaged in a very earnest political discussion, when some one equally earnest struck him in the right eye, making a bruise on the cheek and a small lacerated wound of the eyebrow,' the evidence of which you see for yourselves. The man at that time was quite well, although under the influence of liquor. 'During the night he had much pain in his eye, and in the morning the eyelids were œdematous, and the cheek likewise swollen, red, and burning.' When he applied for admission the inflammation was confined to the right side of the face, but it spread rapidly, and the same afternoon both eyes were closed. It is worth adding to this history that he had slept out all Wednesday night after receiving the injury. He was admitted on Thursday morning, with erysipelas of the upper part of the face, which was rapidly spreading over the brow. His pulse was 80; temperature, 102.8°; respiration, 22. The urine was examined, with a negative result. He was ordered tincture of the chloride of iron, twenty drops every three hours, but only received one dose; as the disease was rapidly spreading, and something was needed to make a prompt impression, I used another and more active agent. This was not the first case in which I had used this remedy, but it was the first in which I obtained such relief. He received, hypodermically, one-sixth of a grain of the muriate of pilocarpine. The result was remarkable. Here is the temperature record: the temperature fell from 102° to 99½°. He sweat profusely for an hour and a half, and there was no further development of the erysipelas; not only did it not spread further, but what did exist quickly subsided. No local treatment was employed, not even cold applications; therefore, whatever success was obtained was from the pilocarpine.

"I call your attention to this treatment of erysipelas. I said that it had not been my first case, although it was the most striking case I have seen. As long as five years ago I used jaborandi in the treatment of erysipelas until sweating was produced, and, I thought, with the result of checking further development. In one case with high temperature the disease had already made some headway, and did not subside so quickly. Under the use of iron the disease had not been controlled, but the fluid extract of jaborandi, given every two hours, checked it. I have since used the jaborandi in connection with the iron at times with good results. This is, therefore, not a new treatment with me, as I have used it for some time. Jaborandi and pilocarpine, its active principle, are, of course, similar in their effects.

"I have called your attention to this treatment, not because I believe it will be followed by the same result in every case, but because it is worthy of a trial. If you get a case of erysipelas in its beginning, use pilocarpine. It has saved this man a long and dangerous illness; and, as he had been drinking, as he says he had, the results might have been serious. In the use of this treatment it should be borne in mind that, in order to be fully effective, profuse sweating must be produced.

Psychical Troubles Among Children.

In the *Semaine Med.*, July, 1884, Dr. Leidisdorf says: "Fifty years ago it was absolutely denied that psychical troubles existed among children. It is only within the past ten years that the subject has been discussed by alienists to any extent. During a given three years, 1,714 insane patients were received at the hospital at Döbling (Vienna), who were over eighteen years of age, while only seventeen under the age of eighteen were received. By the last census of Berlin, it appears that there is in that city one insane adult to 400 sane ones, while of children the proportion is one to 1,400; but the author thinks that no conclusion can be drawn from these statistics. As the result of the author's minute observation, the opinion is advanced that there are few permanent psychical troubles among children, though transitory ones are abundant. Of the latter, the author has observed among children four or five years of age sudden attacks of depression, melancholy, or bad humor. He mentions the case of an intelligent little girl who was suddenly seized with fear that she should lose her parents and be abandoned by everybody, and who became profoundly depressed as a consequence. The same condition is sometimes produced by exaggerated concern on the part of friends for the health of a child, and again by the sight of dead or sick people. Hallucinations are common enough in the psychical life of children, a familiar example being the *night terrors* to which many children are subject. Somnambulism is also of not infrequent occurrence, a condition resembling this sometimes occurring also by

day and while the child is awake. An interesting case of the latter variety occurred in the author's experience. Another class of psychical troubles may be permanent. [These are called by the author *zwangsvorstellungen*, a word which has no exact English equivalent; the corresponding French term is *imaginations forcées.*] Such a condition occurs when, for example, a child is filled with fear at the sight of a needle; or, when such a question is asked as, What is the world? and this tendency to mental perturbation may last during life. Permanent psychical troubles are rarely seen in children who are under fourteen years of age. Among the neuroses which are most likely to lead to permanent psychical troubles, are mentioned chorea, epilepsy, and hysteria; and meningitis is less frequently a predisposing cause. One case is reported by the author of progressive paralysis of the insane in a girl fifteen years of age. This is a most unusual condition, only one other case being recorded in medical literature."

The Importance of Oxygen and and Ozone as Therapeutic Agents.

The *National Druggist* tells us that in the *Archiven für die Gesammte Physiologie*, M. Filipow contributes a study on this subject, of which the following is an extract:

At the request of Professor Dogiel, of Kasan, the author carried out a series of experiments on mammalia (including man) and fishes, with the view of reconciling, if possible, the numerous and contradictory results hitherto obtained as to the influence of oxygen on the animal organism.

After two pupils of Dogiel had arrived at the conclusion that neither the pulse nor the temperature were in the least affected by the inhalation of pure oxygen, it was demonstrated (in 1880) that the contrary was true, and that both were augmented very considerably. It was further shown that oxygen, breathed instead of atmospheric air, arouses the appetite, and thus increases the weight of the body; that it creates a slight nausea, and increases the number of the red blood corpuscles. The number of the white corpuscles, and the quantity and the relative composition of the urine, remained unaltered. Ozone, in addition to these effects, induces sleep in man and lower animals, and passes (as ozone) into the blood. The experiments with oxygen, when carried out on human beings, were performed by means of an apparatus which carried off the expired gases without allowing them to come in contact or mingle with the inspired oxygen. Frogs were simply placed under a bell glass, which was connected with a gasometer, and was placed over water. The conclusions reached by Filipow concerning oxygen were that the inhalation of pure oxygen has no advantages over that of pure atmospheric air, at least so far as heart action, breathing, and bodily temperature are concerned. In poisoning by chloroform, ethylic alcohol, sulphuretted hydrogen, and carbonic oxide, the inhalation of oxygen has no advantage whatever over that of ordinary air.

The inhalation of diluted ozone produced a feeling of warmth in the chest, a slight stupefaction, sleepiness, and a slight coughing. Breathed in its concentrated state, on the contrary, it produced excitement and aroused the energies. There was no tendency to sleep. The conclusions of Filipow on this head were, therefore, that the inhalation of diluted ozone can not, as stated by Binz, be used as a means of producing sleep. The inhalation of pure or concentrated ozone causes a powerful excitement of the mucous membrane, and is therefore injurious to man and animals—a conclusion which agrees with those reached by earlier experimenters. The taking up of ozone and blood through the organs of respiration must, as heretofore, be regarded as not demonstrated.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——A careful report on tinnitus aurium by Dr. G. C. Catlett, of St. Joseph, Mo., reprinted from the *American Journal of Insanity*, makes a pamphlet of twenty pages of well-digested matter.

——In a brochure of twenty pages, published by George S. Davis, Detroit, Dr. Robert M. Smith describes the most recent methods of studying the physiological action of drugs. As these methods are, many of them, of recent introduction, and differ materially from those in vogue ten years ago, the suggestions are timely.

BOOK NOTICES.

Denison's Climatic Maps of the United States. Published by Rand, McNally & Co., Chicago, Ill. Prepared by Charles Denison, M. D., of Denver, Colorado.

This publication is a well-printed and colored wall-map, showing the temperature, humidity, elevation, rainfall, prevailing winds, and other climatic features of the United States and territories. It is especially prepared with reference to the wants of physicians and health-seekers, and to show the sanitary characteristics of localities.

The climates are presented according to the seasons—spring, summer, autumn, and winter—and the statistics have been carefully reduced from the observations of the Signal Service Bureau, and may, therefore, be assumed as entirely accurate.

These maps are mounted in various ways and the information they contain, while interesting to all, is especially instructive to physicians, who, by their use, can intelligently select and recommend a climate to suit the requirements of any particular case for which a change is desired. We can recommend them as the most satisfactory of the kind that have ever been published. They may be had of the publishers, who will send prices, etc., on application.

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THE CHOLERA EPIDEMIC IN PARIS.

Dr. Dujardin-Beaumetz communicated to the French Academy of Medicine at its December meeting some interesting data concerning the recent epidemic of Asiatic cholera in Paris (*Deutsche Medizinal Zeitung*, p. 607, 1884).

The first case appeared during the night from the 3d to the 4th of November, in Aubervilliers, the last happening at this place on the 15th of the same month.

November 5, at a time when the general condition of the city was one of remarkably good health, there were already reported in Paris, at several places simultaneously, some ten or fifteen cases. The epidemic rapidly increased up to the 10th, on which day it reached its height, and then slowly decreased, until at the date of the report about one fatal case occurred daily.

Comparing the mortality of this epidemic, viz., 4.05 deaths for each 10,000 inhabitants (the absolute number of deaths being 912, of whom 382 were women and 530 men), with that of former epidemics of the same disease, the following result is obtained:

1832, of 10,000 inhabitants, 234.16 died.
1849, of 10,000 inhabitants, 185.31 died.
1854, of 10,000 inhabitants, 78.0 died.
1873, of 10,000 inhabitants, 4.6 died.
1884, of 10,000 inhabitants, 4.05 died.

This proves the gradual, but certain decrease in the severity of the epidemic.

The different sections of the city suffered in so changing a manner, that no deductions can be made from the statistics referring to them.

In Toulon last year 669 persons died of cholera, viz., 12.6 of each 1,000 inhabitants; but considering the great number of individuals that left the city or suffered from the disease somewhere else, the mortality-rate has in fact been a much higher one. The same may be said of Marseilles, where 49.4 per cent. died of each 10,000.

Regarding the origin of last year's epidemic in Paris, it is not possible even to guess. Certain it is, that weak and sickly persons, as also specially "topers," contributed by far the greatest majority of deaths. An attempt to connect the march

and spread of the disease with the distribution of the water had to be given up. As well known, two aqueducts run parallel in the streets of Paris, one carrying the water from the Seine and the Ourcq, the other from the Vanne and Dhuys. To determine the mooted question, it would have been necessary to inquire in every house, from which line the water consumed had been procured; and even then the result would not have been deciding, as both lines so intimately anastomose with each other that it is an impossibility in most houses to say from which line the water had been obtained. But the information has been nevertheless gained, that the districts provided with water from the Ourcq suffered most severely, or rather, that in the sections most affected this water was the one by far mostly used.

Of special salutary effect seem to have been the police measures for the transport and the disinfection of the sick and their residences. From November 4th to 30th there were thirty wagons which specially served the purpose of transporting more than 900 patients to the hospital, and 73 "désinfecteurs," divided into groups, and having at their disposition thirty-nine wagons, carried out more than 795 disinfections. To these figures must be added those obtained from every "mayoralty" of the city; those above-mentioned having been under supervision of the central police, while each district had besides its own transport wagons and its own disinfectives.

That these measures have had a great influence upon the severity of the epidemic, and decidedly contributed a great deal in diminishing the activity of the disease, becomes clear, if we remember that the epidemic first began with the same severity that former ones had shown, and that was noticed in Toulon, Marseilles, and at other places; and we must also not forget that the only difference between this and other epidemics consists in the number of persons who, during the same length of time, were victims of the disease. Comparing the number of individuals that were admitted to the cholera hospitals of Paris during each epidemic with the number of deaths, it will be found that the difference is a very small one.

There were admitted into the hospitals in
Toulon, 221 persons, of whom 55.6 died.
Marseilles, 659 persons, of whom 51.1 died.
Paris, 1,037 persons, of whom 54.49 died.
Nantes, —— persons, of whom 51.— died.

After the reading of the report, a debate took place, during which Dr. Hardy expressed the opinion that the simultaneous appearance of the disease in different parts of the city, and at a time when the general hygienic conditions were excellent, decidedly proved that the drinking water had nothing to do with the spread of cholera. He also praised the measures taken by the city government, but thought that the next time they should be introduced and executed with less noise and talk, as these but disquieted the inhabitants and created fear. It would further be better to omit the forced fumigations in the rooms of cholera patients, as they were directed against an unknown agent.

Dr. Dujardin-Beaumetz defended the fumigations, which had been instituted in analogy with those long since practiced with such great success by the military authorities in the case of typhus, small-pox, etc. There was certain proof that some house epidemics had been prevented, and others extinguished, by these fumigations.

In general these data do not contain much that is new; still they are of great interest, first as proving the diminution in the severity of the disease in consequence of the better hygienic conditions and the greater knowledge we possess of the malady; and secondly, as indicating to us some of the measures which, as the transport and the systematic disinfection, seem to have been specially successful in the prevention of the spread of the epidemic.

REFINEMENTS OF DIAGNOSIS.

We have no disposition to quarrel with specialists; to a certain extent, that is to say within a healthy professional limit, we are advocates of specialism. As we have already had occasion to say, the progress of medical science during the

last ten or fifteen years has been too great for any one mind to grasp in its entirety. There are so many workers, so many investigators, who are constantly adding to our sum of knowledge, that it would be utterly impossible for any one man to read, much less *remember*, all even that is worthy of remembrance. But—and this is a big BUT—we feel compelled to ask the question, as we have done before, whether specialism is not running wild.

An observant physician who goes about among his fellows, who visits hospitals and medical societies, is continually hearing some *honest* man admit that his autopsy has proven the falsity of his diagnosis, even in some ordinary disease that is usually supposed to have good and well-established rules for its recognition. How then do we feel when we read of such a wonderfully accurate diagnosis as "*Catarrhal Fallopian Tubes.*"

We are not specialists, and we feel that we may be accused of great ignorance in not knowing how to recognize "Catarrhal Fallopian Tubes," but at the same time we are quite sure that the older men in the profession—those men who are *solid*, so to speak, those men who have battled the storm, and whose mature minds view things as they really are and should be, and not through the biased vision of a modern city specialist—will agree with us that when a man says that he has been able to diagnose "*Catarrhal Fallopian Tubes*" before operation, he is at least open to the suspicion of "*guessing for effect*," and that if results verify his sensational diagnosis, he may be called a "lucky man" in truth. We will not mention names, but such are the facts as stated in a recent issue of one of our most reputable medical journals. The author of the article says—we give his own words:

"By a careful study of each case and by the use of preparatory treatment to soften and relax the adhesions, I was able, in almost every case, to make a more or less exact diagnosis before operating."

"Eight were cases of pyo-salpinx; two hydro-salpinx; and four *catarrhal tubes* with peritoneal adhesions."

Of course, we can all readily conceive that catarrh of the fallopian tubes may exist; it is most probable that such a condition does exist in a large majority of the cases of sterility that come under our observation; and our only wonder is that all of our *fashionable* city women are not troubled with it—perhaps they are: but for a man to claim that he can diagnose a catarrhal condition of a little tube absolutely hidden from his sight, is, to say the least, a very great claim. Of course, our author does not claim that he can always diagnose this condition; but the extracts which we have given from his paper show that he desires to convey the impression that he possesses very peculiar powers of diagnosis, which would make him a very desirable person for country doctors to send their puzzling cases to.

We do not wish to reflect personally on any one, or to decry true specialism; but we desire to take this opportunity to annonnce our belief that specialism is being carried to a ridiculous extent. It is time for us to tell the *intelligent* country doctor that he is just as capable of treating the majority of cases that come before him as is the fashionable city specialist.

If the *country doctor* (who is usually considered to be a second-rate man, just because he lives in the country) keeps himself abreast of the times by active reading, he is perfectly capable of attending to all the cases (*almost*) that come to him. Of course there are certain legitimate specialties, as the *eye* and *ear*, with which the general practitioner has not the opportunities to familiarize himself; although even here, by careful and thorough study, he can equip himself very thoroughly, yet we would advise that such cases be sent to well-known specialists. But when it comes to surgical cases, we cannot see why an intelligent, well-read country doctor cannot make himself as competent as any city doctor.

Of course, mechanical skill is a very important point; but one must remember that our large cities are now so crowded with specialists in their various branches, and the majority of them comparatively young men, that their opportunities for acquiring adeptness in mechanical skill are comparatively limited. We must again say, that we are in favor of *legitimate specialism*, but that

when we read of these beautiful niceties in diagnosis, we are constrained to ask the older members of our profession whether human nature is really any better off to-day than it was in the days of Chapman, Dewees, Physick, or Jackson, and whether our refinements of diagnosis among our fashionable specialists do not rather tend to multiply the ills of humanity, and to suggest new diseases to their patients, than to add to the real practical progress of our profession.

Our large cities are gradually filling up with specialists, and it is a necessity. Trade is not conducted as it was in times gone by. Each successful business house to-day has built up its success on some special article for which it has secured a reputation; so it is with physicians, and so it must be, since such is the order of the day; but, do not let us go too far. Let us give all credit to legitimate specialism, but let us look with a certain amount of distrust upon these refinements of diagnosis.

Notes and Comments.

Total Obliteration of Urethral Canal in a New-Born Child; Operation; Recovery.

Dr. Edward Wood Forster reports the following case in the *Brit. Med. Jour.*, January 3, 1885:

On January 3, 1880, Mrs. J. was confined at full term of a handsome and fully-developed boy. A slight venous congestion marked the site of the urethral orifice, on the under side of which there was a shallow groove of about the one-sixth of an inch in length, not, however, dipping into the urethral site, nor taking from its normal length, but infringing slightly upon the frænum. The prepuce was retracted. The examination evidenced occlusion, and the symptoms called for prompt action.

At 7:30 p. m., the infant was placed under chloroform by Dr. Fothergill, who ably controlled the anæsthetization thoughout.

The operation consisted in a gentle, but firm, screwing and pushing movement through the occluding material, and it proved that the canal was obliterated in its entire length. When approaching the neck of the bladder, the index finger of my left hand was passed into the rectum, and retained there, as indicator and gubernator, until the catheter had passed through the membranous and prostatic portions, and had freely entered the bladder. Very little blood was lost. The instruments used were a probe, director, a stout curved stilette, and a small-sized catheter belonging to a pocket-case. The stilette required very delicate management, but proved an apt instrument. The break into the bladder was affected by the catheter, and water immediately flowed. An oiled bougie was passed for two or three days; the wound healed rapidly, and, strange to say, the infant never showed signs of any suffering from the flow of urine over the abraded surface. At the end of a week or ten days the cure was complete, and remained so.

This case is interesting because of its rarity. Sir Henry Thompson, in his article on "Diseases of the Urinary Organs," in Holmes' *System of Surgery*, says, "The canal is sometimes occluded, and this produces retention of urine and death during the early hours of life."

We may possibly conjecture that, in this case, the developmental process had been somewhat checked, the "uro-genital sinus" retaining something of its original character. The very slight hypospadias would give force to the supposition.

A Point in the Treatment of Purulent Ophthalmia.

Dr. Edgar A. Browne (*Brit. Med. Jour.*, January 10, 1885,) considers that the two most important considerations in the treatment of this disease are to wash away the infective material as thoroughly and as early as possible, and to render the conjunctival epithelium and secretions as nearly as may be aseptic. For the first indication he has devised an instrument that enables him to throw a stream of pure or medicated water into the upper sulcus for any length of time he pleases.

The instrument resembles an ordinary lid-elevator, but it is rather deeper in the claw, and constructed of hollow-plated tubing, instead of wire. It is furnished above with a handle, and behind a small curved nozzle is connected by means of an India-rubber pipe, six or seven feet long, with a resorvoir capable of containing about a quart of solution. The limb that passes beneath the upper eyelid is pierced with six fine holes, through which the fluid issues as a douche. A stop-cock or spring-clip is provided to regulate the flow.

In use, the reservoir is filled and hung up. The surgeon or attendant stands behind the patient, who holds his head slightly inclined over a basin. The elevator is gently insinuated under the upper lid, and the stream turned on.

The points requiring attention are these:

1. It is necessary to ascertain that the orifices are patent; they are liable to become clogged; four in full play are sufficient.

2. The reservoir must be well elevated to give a good fall, and it must be nearly full to give a good pressure.

Dr. B. had very good results from a solution of trichlorphenol. He finds a two per cent. solution amply strong for the first applications in gonorrhœal ophthalmia, and one per cent. for ordinary use. It gives rise to a good deal of smarting, which ceases directly the flow is stopped. Some skins are easily irritated by its flow over the cheek; the majority are not affected. The skin may be protected by vaseline if necessary. He uses it twice a day for about a quarter of an hour. In one severe case he used it three times a day. As the case progresses, a one per cent. solution is sufficient; in some, a half per cent.

Lung Disease in a Lion.

Before the Academy of Medicine in Ireland (*Brit. Med. Jour.*, January 3, 1885):

Mr. Abraham exhibited the left lung of a lion which had been born in the zoölogical gardens, had lived there twelve years, and recently died. The animal had had good health till October first, when there was sudden cold weather. The lion refused food, seemed feverish and thirsty, and his respiration became exceedingly rapid. He appeared to have pleurisy, his chest being fixed, and his breathing abdominal. An attempt to administer medicine failed. He took little food, except occasionally. He drank some nitre in water, with diuretic effect. He had no cough, but two or three times he spat mucus, which toward the end became bloody. Ultimately, he became emaciated, and died. His viscera were healthy, except the lungs. There was no pleurisy, but the lungs were diseased, mottled in appearance, and hard and lumpy to the touch. On section, they presented a curious honeycombed aspect. The bronchial tubes were enormously enlarged. In the lower lobe of the left lung was a large cavity. The microscopic sections of various parts of the lung did not show the structure of tubercle, nor did any of the bronchial glands. He was not sure what the disease was. The father of the lion died in precisely the same way.

Mr. Baker remarked that lung disease was common among cats, which frequently suffered like the lion in question.

The President observed that monkeys were subject to consumption. In the lion's lungs exhibited, he had no doubt the cavity existed for years, and a small amount of cold sufficed to kill one of the large carnivora.

Mr. Abraham said that, long ago, Dr. Haughton discovered that tubercular phthisis was not so common in monkeys as was generally thought, and he showed it in a paper read many years ago before the old Pathological Society. And in a paper read before the Zoölogical Garden of London, Mr. Sutton recently came to the same conclusion.

Splenic Anæmia Treated by Phosphorus.

In the *Brit. Med. Jour.*, January 3, 1885, Mr. T. Jenner Verrall reports this case:

The patient, a rickety child, aged fourteen months, was first seen in the middle of October, 1883. The spleen occupied the whole of the left side of the abdomen, extending forwards nearly to the umbilicus and backwards to the spine. The blood examined was very pale; about thirty white corpuscles could be counted in the microscopic field. Under Parrish's food and cod-liver oil, the child grew worse, losing flesh rapidly. At the end of a month Parrish's food was discontinued, and to the teaspoonful of oil was added a minim of the oleum phosphoratum of the *British Pharmacopœia*, twice a day. From this time the child improved. The diet ordinarily given to children of this age was not allowed, except that the juice of an ounce of raw beef was given daily for about five weeks; but even this small change was not made until the phosphorus had been taken for a fortnight, and had already produced an effect. The spleen diminished in size and hardness, till, on March 12, 1884, when the phosphorus was given up, it measured about four inches in length and depth, and was soft and movable. Very few white cells could be seen; and the blood was much darker. The improvement was permanent, the child being under observation for six months longer, growing and gaining flesh. Mr. Verrall pointed out that this case was an exception to the rule laid down by Sir W. Jenner, that enlargement of the spleen in rickets was always due to albuminoid infiltration, and was unaccompanied by any increased number of white cells. He believed that the evil lay in deficiency of nerve-power, for which the phosphorus would be an appropriate remedy. He attached great importance to the smallness of the dose, and to the length of time over which the treatment extended.

The Treatment of Psoriasis.

This obstinate disease, with its great tendency

to recur is the bete noir of the physician, hence it is well that we should be familiar with a number of methods of treatment, that we may turn from one to another until successful. We therefore note from the *Chicago Med. Jour.* (January, 1885), the following treatment as recommended by Dr. Henry J. Reynolds:

"We will first, for the purpose of getting rid of the scales, apply carbolized ointment twice a day for two days, then the entire body will be bathed in hot water with plenty of soap and friction. The same ointment will again be applied for two or more days, and followed by the same bathing process. We will then have a chrysarobin ointment, of grs. xx. to ung. aquæ rosæ ℥j., applied twice a day to every individual lesion on the body. The chrysarobin should be suspended and the former process substituted about every week or ten days. Arsenic may also be given internally in this disease, beginning with about five drops of Fowler's solution, three times a day, and gradually increasing, as indicated by the effects.

For the prevention of the return of the disease frequent bathing with hot water and green soap, and measures which tend to keep the skin active, are indicated.

A Remedy for Street Noises.

For those who, on account of nervousness, are morbidly sensitive to noises, the following ingenious, but simple, device, which a physician recommends in the *London Med. Times*, may prove of value. He thus describes it:

"I placed some spermaceti ointment in the centre of a little square of thin limp cotton, brought the corners together, tied them with thread, and inserted one of the little plugs well into each ear, and found—after a little kneading and gentle pressure—that I was absolutely deaf to all ordinary sounds, such as the loud barking of dogs, and the rumbling of heavy carriages in the streets.

"A couple of points must be carefully attended to. The ointment must not be too soft, the quantity about the size of a small pea, and the little bag must be somewhat larger than its contents, to allow the plug to take the shape of the auditory canal. If the bag be too small, or its contents too large, it cannot be inserted into the ear; and if applied only to the orifice, it entirely fails in its object. This little experiment is easily tried, and a daily experience of over twelve months, warrants me in saying that it will be found invaluable in the sick room."

Nursing by the Mother.

While nearly all physicians agree that maternal nursing is much to be preferred to any form of artificial feeding, yet it sometimes happens that the mother either really is, or makes it seem that she is, unable to suckle her child owing to a want of a sufficient supply of milk. This drawback, which will prove a serious one to the child, may be overcome in many cases; for as Dr. Jerome Walker tells us in the *Archives of Pediatrics*, January 15, 1885, if there is a judicious following out of hygienic measures, especially those relating to food, out-door exercise, and the fit of clothing, and if there is a judicious use of medication, such as will increase muscular strength, produce or maintain a healthy appetite, rouse the spirits, and provide for free elimination of waste products, then a healthy secretion of milk is made possible, even in some of the most obdurate instances of defective lactation, and our patients gain in many ways by our encouragement of nursing by the mother. We cannot believe at present that the dietetics of infancy are so well understood that artificial feeding of young babies should largely take the place of maternal nursing.

Portion of Ear of Corn Penetrating the Larynx.

Before the Manchester Medical Society, December 3, 1884, Dr. Hodgkinson gave an account of the following case: John N., aged 23, applied at the Throat Hospital, complaining of pain in the throat, increased in swallowing, together with hoarseness, slight difficulty of breathing, and cough. He stated that four days previously, whilst laughing with a piece of straw in his mouth, it slipped down his throat. He was first seen by Dr. Gamgee, who noticed a swollen condition of the higher ary-epiglottic fold, which was surmounted by a grey slough. Dr. Hodgkinson afterwards saw the case; and, the slough having cleared away, he recognized about an eighth of an inch of straw projecting from the œdematous ary-epiglottic fold. This was removed with laryngeal forceps. It was part of an ear of corn, which had been embedded in the tissue to the extent of three-quarters of an inch. All symptoms disappeared on removal; the opening in the ary-epiglottic fold remaining for several days.

Intussusception.

This affection is sufficiently rare to warrant the occasional publication of cases in order that its possibility may be kept prominently before our minds. Dr. D. Jamison reports the following case

in the *New Orleans Med. and Surg. Jour.*, January, 1885:

Joe Cooper, colored, aged thirty-one years, was admitted September 29, into ward No. 33. He appeared to be suffering from constipation, with some abdominal tenderness on pressure. Before he came to the hospital the pain was so great that he fell down in the street and had to be brought to the hospital in a wagon. He was given calomel and soda, large injections, and sulph. mor. (hypodermatically). For two days he seemed to be better, although he had not a satisfactory operation. October 2, he complained of great pain; Ol. Tig. and Ol. Ric., with morphine, were at once given. In two hours he vomited stercoraceous matter and immediately became very much worse. His condition is now so grave that an operation is judged useless. He died in a few hours. The post mortem confirmed the diagnosis. The portion of the intestine involved was the ileum, over three inches were invaginated, the upper gut slipping into the lower. There was extensive peritonitis.

Cancer of the Peritoneum.

Dr. Samuel Fenwick has been recently delivering a course of lectures on "Cases of Difficult Diagnosis," which are being published in the *Lancet*. Speaking of *stricture of the intestines*, he says:

"Cancer of the peritoneum frequently gives rise to constriction and obstruction of the intestines. When the disease is, as is usually the case, associated with ascites and with abdominal tumors, the diagnosis is tolerably easy. But there is another and more rare case, in which the cancer is scattered over the peritoneum in a miliary form, and in which attacks of colic are for some time the only prominent symptom; and here it would be a matter of great difficulty to arrive at a correct diagnosis in an early stage of the disease. You should in such instances always examine by the rectum, for often small tumors are to be felt in Douglas's pouch, when they are nowhere else to be discovered; and if in addition to the presence of a tumor you find a gradual loss of flesh and strength, the occurrence of ascites, or an implication of some other organ, you have facts that will enable you to arrive at a correct conclusion."

Religious Influence in the Treatment of Inebriety.

Opinion will probably always be divided upon the question as to whether inebriety is a vice or a disease. There are a great many eminent men who hold the latter view, and prominently among them is Dr. T. D. Crothers, the able Superintendent of Walnut Lodge, Hartford, Conn. We have already published several papers from this gentleman, in which he strongly advocates the disease view, and wherein he offers very good arguments to sustain his position. We now note his conclusions of a paper in the *Quarterly Journal of Inebriety* for January, 1885, as follows:

1. Inebriety is a physical disease which must be reached by both physical and psychical means.

2. All methods of treatment must be along the line of natural laws, and include all means, both physical and spiritual, that can build up and strengthen the entire man.

3. Spiritual means are only valuable in proportion as they are used with other means, and where they are effectual alone, they are the exception to the rule and cannot indicate any direct line of treatment.

Some Good Formulæ.

For the following we are indebted to the *College and Clinical Record*, January 1, 1885:

As a stimulating application to a chancroid, Prof. Gross recommends:

℞.	Acid tannici,	gr. ij.	
	Ung. hydrarg. nit.,	ʒj.	
	Adipis benzoat.,	ʒj.	M.

Sig.—Apply on a a piece of lint.

For the sweating of phthisis, Prof. Bartholow advises:

℞.	Acid. gallici,	ʒss.	
	Ext. belladonnæ,	gr. ij.	M.

Ft. pil. x.

Sig.—Two pills at bedtime.

A favorite prescription of Prof. Da Costa in marked idiopathic anæmia is:

℞.	Ferri sulph.,	ʒj.	
	Potassii carb.,	ʒj.	M.

Ft. pil. No. xl.

Sig.—One after meals for first week; increase dose in second week, etc.

If the patient is a female, suspend treatment during menstruation.

—Before the Brighton and Sussex Medico-Chirurgical Society (December 4, 1884), Dr. Ross showed a gall-stone, weighing upwards of four drachms, passed at stool by a man aged 50. He had suffered from frequent bilious attacks and from jaundice during the last year, and had the aspect of malignant disease. On October 16, vomiting, hæmatemesis, obstruction, tympanites, and pain, referred mostly to the ileo-cæcal region, set in. On October 22d, when apparently dying, he felt a sudden burst and escape of wind. The stone was then evacuated by the bowel, and he rapidly recovered.

CORRESPONDENCE.

Providence Letter.

EDS. MED. AND SURG. REPORTER:—

The people of our city have recently been treated to a rich dish in the form of a trial for procuring criminal abortion, the result of which was a disagreement of the jury. Scarcely had this trial reached its end, when another case was reported. If there are still more to follow, and all are to escape punishment, it will not be long ere Rhode Island shall have the honor of sheltering an abortion mania, as it now does the divorce mania. The fact is, our laws are very lax upon both of these important subjects.

The following from the Attorney General's plea is so full of sound sense, that I am going to give it verbatim: "One verdict against this thing, against this evil and this crime, will save more lives than when twenty verdicts of murder have been found."

The last quarterly meeting of the State Society was one of much interest. Two very good papers were read, and though treating of rather trite subjects, yet were presented in such an attractive form as to claim attention. "The Nature and Prevention of Puerperal Fever" was well treated by Dr. Fuller. He placed it among the septic diseases, though claiming that the definition should be broad enough to include blood-poisoning from infection, be the cause septic or zymotic. His treatment was that advocated by the modern authorities.

In the discussion which followed, several members took part.

Dr. Terry said that if we did not recognize the germ theory, the statistics showed the result of treatment based upon this theory to be a vast improvement upon the result of treatment based on any other theory, hence we should consider and treat it as germ disease. He claimed that the rigid rules now advocated so strongly by Dr. Thomas, of New York, were in force in the Boston Lying-In Hospital as early as 1876, and that Dr. Thomas did not introduce them, but did bring them permanently before the profession.

Dr. Newhall claimed that they were introduced by Dr. Thomas, but offered no facts to support his statement. Dr. Newhall opposed all theories and treatments relating to germs. Seeing alone was believing.

Dr. Ballou opposed all meddlesome attentions. In his experience and opinion, nature was more to be depended upon than injections and the many other things now advocated.

Dr. Caswell supported the happy medium, though when the fever was epidemic stronger measures would be required.

Dr. Ely said, as parturition is a physiological process, it requires no set rules in treatment. He considered of great importance absolute cleanliness, and for this purpose antiseptic solutions were not called for; indeed, he had very little faith in them, the principal virtue being in the pure water contained. He doubted the advisability of intra-uterine injections in any case.

The other paper was concerned mainly in giving statistics, of which some very interesting ones were read. It was a report of the "Investigation of the Premises and Dwellings of Three Hundred Cases of Typhoid Fever." These cases occurred in Providence during the epidemic of '82 and '83. The report was very thorough, and covered nearly every subject, such as age, occupation, water supply, heating etc. It was a very instructive paper in a sanitary point of view.

"Providence Lying-in Hospital. Incorporated, February 29, 1884." Such is the title of a little pamphlet handed to the members as the Society adjourned. It is neatly gotten up, and sets forth by whom and for what this hospital is designed. It also contains a list of officers; the act of incorporation; constitution and by-laws. It will be seen that this project is dated 1884. Yet nearly a year has elapsed since full power was granted, and there seem to be no indications of progress.

In looking for a reason, one is obliged to be satisfied with his own, as none is furnished by those who have the enterprise in hand. It can't be for want of funds, or if this be the cause, it can't stand, for a well-known party of this city has agreed to furnish the hospital in all its parts. The demand for such an institution is recognized by all. And no doubt it can be made to do a good work. It has been no uncommon occurrence for several patients of Providence to be registered at the Boston Lying-in Hospital during a year, though a majority gave their residence as Boston, thus obtaining attention at a reduced fee. It may be that a little jealousy has been sifted into the thing, for it is pretty well understood that the Rhode Island Hospital does not favor it. Possibly this is from a fear that some of the favors it now enjoys may be turned into another channel.

In speaking of the Rhode Island Hospital, I am reminded of the fact that a cottage was commenced there in the fall. It was to furnish a place for gynæcological operations. Its progress has been slow, indeed, and time alone can tell when it will be completed. In the meantime, the patient with the large ovarian tumor is daily growing weaker. Its early completion was urged in a great measure for her benefit; and had it been completed in the time named, there is every reason to think a favorable prognosis could have been given.

The Providence Medical Association is composed of those members of the Rhode Island Medical Society who reside in Providence. They meet on the first Monday evening of every month to report cases and discuss other matters of interest.

At a recent meeting, a member in speaking of post-partum hemorrhage, spoke very highly of alum, saying that he used it in preference to anything else. His mode of using was to take a piece weighing three or four ounces and pass it well up into the vagina. At the last meeting the subject of perineal section was well discussed and some very interesting cases reported—one of eighteen sinuses, from which urine passed, was permanently relieved—the mode of operating being to plunge the knife directly into the bladder through the median line; dissecting the parts and cutting slowly being objected to as it was impossible to distinguish one part from another.

The State Society has a fine library, and now has started the nucleus for a museum. At the last meeting a Museum Committee was appointed,

with Dr. McCaw as chairman. He is deeply interested in pathology, and has performed a large number of autopsies during the last two years. Postal cards have been sent to all Fellows of the Rhode Island Medical Society, requesting them to send in such specimens as they have and others which they may obtain.

At the last meeting of the State Society a rare case was reported by Dr. Dyer—it being a *fistula of the antritragus* Offensive matter was being constantly discharged. After going the usual rounds and having had various solutions injected into it, the case fell into the hands of Dr. Dyer. He passed a piece of platinum wire down to the bottom of the sac, and by means of a curved needle it was passed through the wall of the sac. The wire was then connected with a battery, and after coming to a white heat, the wire was disconnected from the battery and withdrawn. The result was complete obliteration of the sac. At the same meeting, Dr. Eldredge presented a specimen of *hamamelis virginica*, gathered in the eastern part of the State during the month of October. He further spoke of its medical properties, and how largely it is used as a domestic remedy, under the name of Pond's exract. If the writer mistakes not, an officinal fluid extract is very generally kept in the drug-store, and as a vehicle in liniments, etc., cannot be surpassed.

B. J. Lillibridge, M. D.

Providence, R. I., January 26, 1885.

The Use of Aconite in the Treatment of Frost-bite.

Eds. Med. and Surg. Reporter:—

The treatment of frost-bite and its consequences, with the stimulating lotions recommended in the books, I relinquished as being unsatisfactory four or five years ago to cast about for something better. Believing the evil local effects of cold to be due to its action upon the nerve-ends in the integument, rather than to its direct action upon the living elements of the tissues, and that they are brought about through the reflex functions of the nervous system, it seemed that the best and quickest method of relief would be found in a remedy which would prevent the transmission of sensation to the nerve-centres, or prevent their reflexion. Of all the articles in the materia medica, aconite seemed to answer these requirements best; and the first trial fully confirmed the supposition.

For frost-bite, I have used it only in the second stage, the period at which the disease usually comes under the notice of the physician, after reaction has set in, when there is redness, swelling, and itching, burning, or tingling sensations, or all of them.

In this stage, the tincture of aconite root applied to the affected parts brings early relief to the disordered sensations; and with their disappearance, the swelling also abates quickly. The medicine should be applied freely with a camel's-hair brush, half a dozen or more times in succession, at such intervals as will permit it to penetrate the epidermis and dry on the surface between applications. After relief has been obtained, the remedy may be used three or four times daily until the parts have resumed a healthy feeling and appearance.

For the treatment of the annually recurring pernio, aconite is equally as valuable as in the initial frost-bite.

One of the latest cases in which I used it was in a young lady who had the outer side of one of the feet and the small toe frosted several years ago. She came to me last winter, saying that she had suffered several winters from the effects of frosted feet, and had tried everything that had been recommended without gaining any relief from the almost intolerable itching and tingling. She was requested to apply the tincture of aconite root to the diseased parts with a brush, half a dozen times daily, until her distress was ameliorated, and then only in the morning and evening. In the course of a month she reported that the medicine had acted like a charm, and she was completely rid of all suffering. With an occasional use of the remedy, she remained free from the effects of the disease until the approach of summer, when, as usual, they disappeared spontaneously, With the recurrence of cold weather this winter the disease reappeared, but its painful symptoms were again dispelled by aconite.

Another late case is that of a gentleman from the country, who had his feet so severely frost-bitten five years ago, that parts of the skin sloughed, leaving behind very irritable ulcers, which annoyed him a long time. Every winter since then there has recurred a most distressing pernio, for the relief of which he had tried turpentine and many other domestic remedies, as well as "medicine from the doctors," without deriving any benefit. After using aconite several weeks, he reported that it had given him more relief than anything he had previously used. Since then I have not heard from him.

As shown in the case of the young lady, aconite, like all the familiar articles mentioned in the books, nearly all of which I have tried, will not cure pernio permanently, but it will relieve better than any of them the distress attending it, from time to time, until the injury the nervous structures of the skin have sustained, will have been repaired by nature's process.

Of all the cases of frost-bite which I have treated with aconite in the last five years, some of which were of more than ordinary severity, none were followed by recurrent pernio. Whether this is due to the aconite, I am not prepared to say, because the number of cases is not large enough to determine such a question. Inasmuch as it can be decided satisfactorily only by comparing carefully a long series of cases treated with aconite with another series treated without it, I will rest contented with the simple statement that I have found this article to give better results, so far as my observation has extended, than anything else; and that, aside from its therapeutic effects, it deserves notice on account of the ease and cleanliness with which it can be used.

Reading, Pa. Daniel B. D. Deaver, M. D.

Mother's Marks.—To Disguise the Odor of Kerosene.

Eds. Med. and Surg. Reporter:—

For sake of record, this case is reported.

Mrs. M. A., primipara, aged 18, American, was delivered of a prematurely dead female infant on January 27, 1885. The child had been carried to full term, but the mother told me that its intra-uterine movements had been painful, even compelling her frequently to lie down in bed, until within two weeks before birth, when they suddenly ceased, with no cause apparent to herself.

This time agreed with the appearance of the child. The skin presented a macerated appearance, and its epithelium was removed in parts. The cranial bones rolled loosely under the scalp, while all the face was livid.

As to the cause of death, that was easily apparent, for the cord was tightly and triply wound about the abdomen at the level of the umbilicus.

There were what seemed to be bruises across the forehead and chin, which might possibly have been real "mother's marks." This Mrs. A. explained by her having been suddenly called to a hospital, some three months since, to identify her brother-in-law, he having fallen from a scaffolding and received frightful gashes across the face, just above the eyes and below the mouth.

Eds. Med. and Surg. Reporter:

In applying kerosene to the scalp for pediculosis capitis, Dr. William H. Bennett (of the medical staff at St. Christopher's Hospital for Children at Huntingdon and Fifth streets), usually adds a few drops of oil of bergamot to the ounce. This gives a pleasantly-smelling oily mixture, which the doctor also employs regularly in the cleansing of wounds.

A. B. Hirsh, M. D.
No. 2130 *Master Street, Phila., Pa.*

News and Miscellany.

The Second Annual Meeting of the Ohio State Sanitary Association, Held at Columbus, Ohio, February 5 and 6, 1885.

The second annual session of the Ohio State Sanitary Association began at the Board of Trade Room, February 5, with the President, Dr. W. Morrow Beach, of London, in the chair.

After prayer by Rev. I. W. Metcalf, the welcome address was delivered by Dr. Gladden, in his usually happy manner. His witticisms provoked frequent outbursts of merriment. * * * * He said Columbus is probably no more guilty in violating sanitary laws than are other cities. Still, we have room to improve. The speaker said that until recently, after watching from his study the clouds of smoke arising from the Capitol, he had not realized how much smoke is generated in the manufacture of law. Gases more pestilent than smoke have been generated at the Capitol. A suitable topic for the future consideration of the Society would be, "The Influence of Bad and Poisonous Air on Legislators." You are engaged in the promotion of human welfare. Social science and sanitary laws are closely related. The interpretation of epidemics was formerly assigned to theologians. The sanitary laws are not explained by science. In admitting that there are laws, we surrender no part of our faith in the Power behind the laws. We have no less reverence for Him because He works by law, and not without plan. It is the business of this Association to make these laws better understood.

Dr. C. E. Beardsley, of Ottawa, responded to the address of welcome, thanking Dr. Gladden for his kind words, and speaking of the importance of the State having better statutes upon sanitary matters.

Dr. O. D. Childs, of Akron, read a paper on "Sewer vs. Surface Drainage, and Combustion." The doctor thought the surface drainage preferable to sewer drainage. But if we have sewers, the waste matter ought, by means of chemical science, to be reduced to harmless substances.

A very interesting paper on "The Tobacco Habit," was read by Dr. Lew Slusser, of Canton. He explained the action of nicotine, quoting from numerous able authorities, and referred to the action of the officials of the Annapolis Naval Academy and other public institutions in prohibiting the use of tobacco. A law has been passed in Switzerland, forbidding the sale of tobacco to minors, and a similar law is now being considered by the Legislature of Wisconsin. Such a law ought to be passed. It might be difficult to enforce the law, but it would in time have effect. The subject ought to be agitated by the people.

The Association passed a resolution urging upon city boards of health the importance of appointing men of thorough scientific acquirements to the positions of meat and milk inspectors.

Afternoon Session.

The Central Ohio Medical Association attended the afternoon session of the Association. Dr. Slusser's paper on "The Tobacco Habit" was discussed. Dr. von Klein, of Dayton, said he thought that tobacco, properly used, is harmless, and even beneficial. Dr. Slusser said the trouble was to fix the limit of use of tobacco. Prof. Nelson, of Ohio Wesleyan University, said that, from long and careful study of the effect of tobacco upon students, he could testify that its use by them is very injurious. Seldom, he said, had he found students using tobacco standing high in their classes, Dr. Reed, of Mansfield, earnestly condemned the use of tobacco, and said he thought it an outrage for any sanitarian to defend it. Dr. McIntyre, of Delaware, agreed with those condemning the use of tobacco. Dr. von Klein denied that tobacco causes any pathological effect upon the system.

Dr. G. S. Franklin, of Chillicothe, presented an able paper on "Sanitary Care of Privies." He proved to be an interesting speaker, and gave some very practical points and suggestions in his paper.

Dr. von Klein, of Dayton, followed with a paper on "The Disposal of Sewage and its Utilization." The doctor proposes to make fuel of all sewage. Samples of the fuel manufactured by Dr. von Klein's process from animal and human excrement were examined. They were square cakes of dark matter and light in weight. The doctor asserted that they were perfectly pure, and substantiated his statement by eating a portion of a cake. He positively refuses to patent his process, but wants to give it to the world free.

"The Relation of the Literary to Medical Col-

leges" was discussed by Professor Edward Nelson, of Delaware. He favored a co-operation between the literary and the medical colleges, with the hope of elevating the standard of education; of inducing college men to study medicine; of securing a study of physiology in the colleges and public schools, and of making public sanitary laws.

Dr. E. S. Ricketts, of Portsmouth, read a paper on the floods of 1883–4, and their sanitary results. He said the people feared lest a general illness would follow the rise of the waters, but there had been less illness in Portsmouth after the great flood than before, because the town had been thoroughly washed out. Dr. Owens, of Cincinnati, spoke of the flood in that city and the good health following, but attributed it to the cold spring, which held off the hot summer. Dr. Reed said that all towns which had been visited by the flood reported an improvement in health. Applause followed Dr. Reed's calling the flood a merciful dispensation. Dr. W. J. Scott, of Cleveland, thought the flood did good in washing out the soil, which had become saturated from the vaults. He called the cesspools the greatest abomination of the earth. He said filth would do less harm if thrown in the street than in the cesspool.

The evening session was opened by a paper on "The Hygiene of the Working Classes," by Prof. W. J. Scott, M. D., of Cleveland. The professor is an elderly gentleman, and has for many years studied the subject of which he spoke. He spoke of the many accidents and diseases that might be prevented. Machinery could be so guarded that accidents would be much less frequent. One of the most common sources of disease among working classes is the clothing saturated with sweat. Clothing, after becoming wet with sweat, is often thrown into closets, and becomes very offensive. Shop-girls are extremely careless about these matters. We of modern times are much behind the people in ancient times. The baths of Rome and Pompeii have never been surpassed. It would be a good plan to have public baths, at which all might become clean.

Dr. Slusser commended the ideas expressed by Dr. Scott. He thought that medical men do not pay enough attention to these important subjects. The attention of the people ought to be called to them. Farmers, as well as those in cities, need to study the laws of hygiene.

Dr. von Klein thought a law ought to be passed, requiring manufacturers to protect their machinery.

Dr. R. H. Reed said the troublesome question is, How will you compel people to keep clean? He referred to the many difficulties in the way, and to the objections to public baths.

Dr. Franklin described the bath houses for public use that have been established in New York city, which have been very successful.

Dr. Beach, President of the Association, referred to the use of emery-wheels in Springfield, where, he said, the operators of the wheels sometimes die after a few weeks' work, and rarely live more than two or three years.

Mr. J. J. Janney said the emery dust could be prevented from scattering in the air, by an apparatus invented for the purpose.

Prof. Nelson, of Ohio Wesleyan University, said the people would not keep themselves clean unless compelled to do so. At Delaware an attempt had been made to interest the workingmen in popular lectures. The professor asked Dr. Scott whether, in the popular lectures given in Cleveland, any sanitary measures had been treated. The doctor replied that sanitary subjects had not been considered, but scientific subjects had been treated, and the lectures had been very successful.

Dr. Hill, of Neville, spoke of the poor ventilation in school rooms, and inquired how, in small towns and in the country, where lectures could not be given, the people could be interested in sanitary subjects.

Dr. Silver, of Sidney, replied that the country press could be used as an educator.

Dr. C. R. Reed spoke of the importance of providing better homes for the people.

Dr. Ricketts thought education the only means by which the people could be taught the importance of cleanliness.

Dr. Bumdage described the bathing system in use at the Ohio Soldiers' and Sailors' Orphans' Home at Xenia.

Dr. von Klein described the public baths that he said are found everywhere in Russia. He said that if such a people as the Russians had learned to bathe, he could see no reason why the Americans can not be taught to do so.

The following resolution, offered by Dr. Franklin, of Chillicothe, was adopted:

Resolved, That it would be a great benefit to the progress of sanitary knowledge, and is recommended by this society, to establish local sanitary societies in each city, town, and village of this State, for the purpose of the diffusion of such knowledge and its realization in practice; and

Resolved, That transparent slides, illustrating sanitary subjects, to be exhibited by the magic lantern, are greatly be desired in the diffusion of this knowledge.

The association, feeling that it would not have enough time at its disposal, was compelled to decline an invitation from Prof. Orton to visit the State University to-day.

FRIDAY MORNING, FEBRUARY 6.

The morning session was opened by prayer by the Rev. G. W. Lincoln, after which the following officers were elected for the ensuing year:

President—Prof. Ed. Orton, LL. D., Columbus.

First Vice President—Prof. W. J. Scott, M. D., Cleveland.

Second Vice President—Dr. D. R. Silver, Sidney.

Third Vice President—James Allison, esq., Cincinnati.

Treasurer—Prof. John Simpson, Ph. D., Mansfield.

The secretary being elected for two years, was not elected this year.

After the election of the standing committees, the association, upon motion of Professor Nelson, appointed a committee to correspond with prominent physicians of the State, urging the organization of local sanitary societies, in accordance with the resolution of Dr. Franklin, adopted last evening. Dr. J. E. Reeves, of Wheeling, W. Va.; Dr. John B. Hamilton, Surgeon-in-Chief of

the United States Marine Hospital Service; and Dr. A. N. Bell, editor of the *Sanitarian*, were elected honorary members.

The first paper to-day was read by Dr. D. R. Silver, of Sidney, on "Heating and Ventilation." The speaker treated chiefly of the exhaustive method of ventilation, by which the lower cold stratum of air is withdrawn from the room. Dr. Silver is a warm advocate of this system of ventilation. The paper elicited discussion from Mr. Janney; Dr. Reed, of Mansfield; Professor Search; Dr. Reed, of Middleport; Dr. Hyatt; Dr. Beardsley; and Dr. Hamill, of Columbus.

Dr. C. B. Reed, of Middleport, read a paper on "Compulsory Vaccination," arguing that the State, for the benefit of its citizens, ought to require by law the veccination of everybody. Remarks upon the subject were made by Drs. Beach, C. R. Reed, Landon, Hyatt, Baldwin, and McIntyre. Dr. Baldwin said that a compulsory vaccination law in England had proven unwise, and had aroused opposition to the principle of vaccination. Mr. Janney was opposed to the passage of such a law.

AFTERNOON SESSION.

At the opening of the afternoon session, thefirst paper was read by Dr. R. Harvey Reed, of Mansfield, on "Climatic Changes in Ohio from the Destruction of the Forests and the Drainage of the Land, and its Effects on the Health of the People."

Professor Orton read the second paper, on "What Shall be Done with the Sewage?" The professor said the question is the riddle of the modern Sphinx. It enters into and complicates every sanitary problem. To answer it so as to satisfy the demands of the public health on one side, and the various economic interests that are involved on the other, is the main end and object of what we call sanitary science. The answers that civilization has so far furnished are all fractional and crude. The term sewage may be considered co-extensive with the products of human waste, which are hateful to every sense. They cannot be retained about our premises without offense and danger. The growing urgency of the question arises from the fact that never before in the history of the world has the increase of cities and towns been so rapid as in the nineteenth century. In our best practice, we are pouring these human products into the nearest drainage channels, without the slightest attempt at precipitation, purification, or utilization. By far the larger portions of our population do nothing with it systematically, but allow it to accumulate around and beneath them.

What ought not to be done with the sewage? In the first place, it ought not to be emptied, in its crude and gross form, into our rivers. Even if sewage could be conveyed by the rivers without ruining them as sources of water-supply, the excrement portion of the soil ought not to be emptied into the water. The poison of the rivers is the life of the soil. The waste products that are a source of danger and death elsewhere are shorn of their powers of evil when they touch the soil. If our best practice falls under sanitary and economic censure, much more must the rude ways of our smaller cities and villages be condemned. The theoretical answer to the question, what ought to be done with the sewage, is easy and obvious. It ought to be returned to the soil from which it was originally derived. It is idle to say that this cannot be done. It is done to-day, and has been done for ages, in the great hives of mankind—China and Japan—and the results are assuring to a high degree. Our ideas of propriety and decency are such that it would be impossible for us to adopt the methods of China. The complete, systematical, self-consistent answer belongs to the future—a future removed from us by decades, if not centuries; but we must do the best we can.

There is no answer that will suffice. There seems to be a great deal to be said in favor of dry removal, by which the excreta are systematically removed at public expense. Sewage irrigation farms have proved very successful in various parts of the Old World, and on a smaller scale in America. The separate system of sewers seems to offer great possibilities of public service. The simplest thing that we can insist upon, and one which may be the beginning of an extended reformation, is the exclusion of human waste from the soil. We ought to be able to require the cementing of cess-pools and vaults.

The paper, which was a very lengthy one, covering thirty-one pages, closely written, was written in Dr. Orton's very interesting style, and was listened to very attentively.

Dr. Reed crystallized his paper into the following conclusions:

"1. From the destruction of the forests, we have more wind (as shown by the Signal Service records), more dust; more sudden dashes of rain, resulting in more sudden changes from one extreme to the other, both as relates to temperature and moisture.

"2. From the immense amount of artificial drainage, and the improvement of natural watercourses, there is a much more rapid transmission of water from the peripheras to the great trunks and basins.

"3. These two causes combined act: 1, in removing the surplus surface water supply more rapidly; 2, by the decidedly increased evaporation; which together rob the natural regulators, and lessen the common supply of springs and wells, which in the latter require deeper average penetration (as is shown in the records of well-driving firms), and in the former of partial or total failure of springs which once were strong.

"4. These changes have been followed with a decrease of all forms of malarial diseases, and an increase of typhoid fever, together with a very decided increase of all forms of catarrhal troubles and their acknowledged common sequelæ—deafness and chronic pulmonary troubles.

"Finally, the author is of the opinion that in addition to all these, the increase of wind and dust is a decided factor in the propagation and spread of all forms of contagious and zymotic diseases, and furnishes a rational explanation for the frequent occurrence of the so-called sporadic cases of contagious diseases."

After the reading of Prof. Orton's paper, the President, Dr. Beach, of London, delivered his retiring address on "Contagions and Epidemics in America," which was a scholarly, interesting,

and historic paper, characteristic of the great man that he is.

Mr. James Allison, of Cincinnati, Vice-President of the American Master Plumbers' Association, sent a very interesting and practical paper on "The Tenement Houses of Cincinnati." "An extremely important element in the sanitary future of Cincinnati is a judicious and sufficient building law. For so long as buildings *may* be erected according to the mercenary caprice of ignorant owners, unscrupulous architects, and shoddy builders, all efforts, however well devised, towards sanitary improvement, will prove inefficient."

Owing to the lateness of the hour, Professor E. H. Hyatt's volunteer paper on "The Cholera Epidemic in Europe in 1884, and its probable entry into our country the coming season," was read by title, as the Doctor had to take the train home.

The following resolutions were adopted:

Resolved, That this Association endorse the bill presented by Senator Palmer in the United States Senate for the prevention of the introduction and diffusion of contagious and infectious diseases in the United States, and to promote the general sanitary welfare of the people, and desire that our Representatives in Congress give it their kind consideration and support.

The foregoing resolution was presented by Mr. James Allison, and the Secretary instructed to inform the Senate and House of Representatives of the United States of America of the action of this Association.

The following preamble and resolution was presented by Prof. W. J. Scott, of Cleveland:

WHEREAS, We may expect, from past experience, the occurrence of an epidemic of malignant cholera in this country the coming summer; and as our position in relation with Eastern cities, in consequence of most of the ways of travel from east to west passing through two States and waterways, by which our State is half surrounded, and in which our dangers are greatly enhanced; therefore,

Resolved, That it is the sense of the Ohio State Sanitary Association that in view of the threatened epidemic of cholera in our country and in our State, the Legislature be urged to provide by law against the invasion of the State by this pestilence, so far as it can be done, by the application of sanitary measures, wisely adopted and vigorously executed. To do less than this, being thus forewarned of danger, is simply criminal neglect of the health and lives of our citizens, to say nothing of loss to the business interests of the State.

Dr. von Klein, of Dayton, presented the following resolution:

Resolved, That this Association declares that cremation or incineration of the human dead is a sanitary measure.

After the adoption of the above resolutions, the Association adjourned to meet in Columbus next February, 1886.

The meetings of the Association throughout were interesting and instructive, and resulted in the addition of twenty-six new members from different parts of the State.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, January 1 to 31, 1885.

Stoner, G. W., surgeon. When relieved to proceed to Washington, D. C., for duty as chief of Purveying Division, January 16, 1885.

Benson, J. A., passed assistant surgeon. When relieved to proceed to Chicago, Ill., for duty, January 12, 1885.

Carmichæl, D. A., passed assistant surgeon. When relieved to proceed to Cairo, Ill., for duty, January 3, 1885.

Ames, R. P. M., passed assistant surgeon. When relieved to proceed to New York, N. Y., for duty, January 14, 1885.

Urquhart, F. M., passed assistant surgeon. To proceed to Norfolk, Va., and assume charge, January 12, 1885.

Brooks, S. D., assistant surgeon. To proceed to Evansville, Ind., and assume charge, January 14, 1885.

Carrington, P. M., assistant surgeon. To report to surgeon-in-charge, St. Louis, Mo., for temporary duty, January 17, 1885.

PROMOTION.

Stoner, G. W., surgeon. Promoted and appointed surgeon by the Secretary of the Treasury, from January 16, 1885, January 14, 1885.

APPOINTMENT.

Carrington, Paul M., M. D., of Georgia, having passed the examination required by the regulations, was appointed an assistant surgeon by the Secretary of the Treasury, January 16, 1885.

Undertakers' Law.

There is occasionally an undertaker who refuses to complete arrangements for burial until his bill for services is paid, and in New York there was a few days since an instance of the kind. The undertaker in this case was engaged to bury a child and agreed to, securing the burial permit necessary. He had, however, an unpaid bill of $16 for previous services, and he refused to allow the funeral to proceed until he had been paid this amount. Complaint was then made by the family to the officers of the Bureau of Vital Statistics, and the Registrar sent word to the undertaker that he must either proceed with the funeral or surrender the burial permit. Upon receipt of this message, the matter was arranged, and the funeral proceeded.

The Hydrangea Arborescens.

The value of this native plant in renal affections was first made known to the medical public by the former editor of this journal, Dr. S. W. Butler. Recently Lambert & Co., of St. Louis, have combined the active elements of the plant with lithia in a preparation called "Lithiated Hydrangea," which unites the virtues of both these remedies. In the *Chicago Weekly Review* two cases of rheumatic gout with renal complications are reported by Dr. F. S. Senier, of Waukesha, Wis., where this preparation in doses of a drachm, thrice daily, largely diluted, acted with prompt and satisfactory effect. The combination seems to us a happy one.

A Jefferson College Professorship.

The resignation of Professor Mallett, who occupies the chair of chemistry in the Jefferson Medical College, which takes effect in April, will cause a lively contest for the position, which is worth about $7,000 a year. Among the best-known applicants are Professor Henry Leffmann, who is now demonstrator of chemistry in the college; Professor John J. Reese, and Professor Geo. F. Barker, of the University of Pennsylvania.

Medical Electric Machines.

The general advance in electrical science of recent years has made itself felt in medical as well as other electrical apparatus. Some of the most satisfactory instruments are those manufactured by the Jerome Kidder Co., of New York. They have received a number of awards for superiority, and well deserve it for their fine finish and durable powers.

Fire at Blockley Insane Asylum.

On the evening of Thursday, February 12, a most disastrous conflagration occurred in the insane department of Blockley Almshouse, in this city. It will be officially determined where the responsibility for the fire belongs. Some twenty of the insane patients lost their lives, some being burned to death, and others so severely injured as to cause death.

Items.

—Dr. George Taylor Robinson, of Camden, has received his commission as assistant surgeon of the Sixth Regiment, National Guard of New Jersey.

—In the *Annals of Surgery*, January, 1885, Dr. Charles B. Keetly, of London, publishes a paper on removal (by scraping out) of the marrow of long bones, and especially on this proceeding as a treatment of osteo-myelitis; also on the same followed by the local application of corrosive sublimate solution and iodoform.

—Before the New York Pathological Society (December 10, 1884), Dr. John A. Wyeth presented a portion of the acromion process and spine of the scapula which he had removed for osteitis the result of traumatism. The point of interest in the case was the fact that complete healing of the wound and recovery took place under one dressing. Antisepsis was observed.

—Before the Liverpool Medical Institution (Dec. 4, 1884,) Dr. Rich showed the heart of a man who had died of pneumonia shortly after admission into the Royal Infirmary. It was not known until the necropsy that he had suffered from heart disease. There was a small aneurism of one of the cusps of the aortic valve, which had produced, by contact with the mitral valve, a patch of atheroma, now dilated into a considerable aneurism of the mitral valve, bulging into the auricle.

—Mr. Payn, in his literary reminiscences, tells the following story: During his Cambridge career, he made the acquaintance of De Quincey, and in his account of this extraordinary man, tells how, lunching with the De Quinceys, "I was asked what wine I would take, and not caring which it was, I was about to pour myself out a glass from the decanter that stood next to me. 'You must not take that,' whispered my hostess, 'it is not port wine, as you think.' It was, in fact, laudanum, to which De Quincey presently helped himself."

—J. Forster (*Dingl. Polyt. Jour.*, No. ccli., p. 170,) has experimented with the view of determining the action of boracic acid upon the animal system, and concludes that the use of boracic acid as a preservative for articles of food is a practice prejudicial to the digestive organs of those using such food. The boracic acid increases the excretion of nitrogen and solid matter in the fæces; and this is experienced when so small a quantity as seven or eight grains a day is ingested. This action is, moreover, in direct proportion to the quantity of the acid taken.

—Professor Da Costa recently exhibited a case at his clinic, in which an attack of facial erysipelas was cut short in a remarkable manner by a hypodermic injection of a third of a grain of hydrochlorate of pilocarpine. The patient received a blow in the face one Wednesday night, and the next morning the upper part of his face was erysipelatous, the inflammation extending rapidly up on the brow, and over to the other eye. On the Thursday afternoon, he received the injection; and, after profuse sweating, the tumidity of the eyelids subsided, and, by the next morning, he could open both his eyes. The disease did not return, and he became at once convalescent, but took iron for a few days before going home again.

—A lay contemporary states that a man in Minneapolis escaped death in a singular manner. A druggist there put up by mistake an ounce of tincture of aconite in a prescription brought to his store by a young man whose residence was unknown. Discovering his error soon afterwards, he endeavored to find the man to avert the mischief. The police were notified, and the officers of the District Telegraph Company sent in search of the party. In addition posters were stuck throughout the city notifying "Charlie Johnson" to call at the drug store at once. On the following day Johnson walked into the drug store and inquired what he was wanted for. He had taken the entire contents of the bottle, but fortunately the tincture was very weak and he was not injured.

—A short time ago, in Paris, a female jeweller was brought up for manslaughter under the following circumstances: A mother, with a little girl, asked her to pierce the child's ears. Madame Massard had frequently seen her husband perform this operation, and complied with the request. The child left the shop, wearing a pair of gold ear-rings. One hour later on, her ears, then her neck, became swollen; she was taken to one of the Paris hospitals, where she died the same night. Madame Massard had pierced the cartilage instead of the lobe of the ear, and the wound became gangrenous. A charge of illegally practicing surgery was added to that of manslaughter, but was withdrawn; and the prisoner was fined $10.00, and condemned to pay $3.00 damages.

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ORIGINAL DEPARTMENT.

LECTURE.

THE ASIATIC CHOLERA.*

BY HUGO ENGEL, A. M., M. D.,

Professor of Nervous Diseases and Clinical Medicine at the Medico-Chirurgical College of Philadelphia.

LADIES AND GENTLEMEN: About a month ago the Ph ladelphia Society for Organizing Charity, in whose hall we are now assembled, invited me to deliver an address to-night on cholera. This dangerous epidemic disease, whose cradle stands in the marshy regions of the delta of the sacred Ganges river, several years since made its appearance in the neighborhood of Calcutta, and in Egypt. Last year it began its ravages in Toulon and Marseilles, thence spread south, and thousands of human beings fell victims to the fell destroyer in sunny Italy and rich Spain. But it was not until, a few months since, the gay capital of the French Republic, Paris, was invaded by the dreaded malady, that civilized humanity really awoke to the threatened danger. For if such a center of human industry as Paris is once infected, if the Asiatic disease once takes hold of a city, to which in the interest of modern civilization thousands yearly flock from every part of the known world, and whence thousands return to their native lands, the further spread of the disease-bearing contagion to every country of the globe where human energy has established intimate commercial relations, simply becomes a question of time. For like Ahasverus, whom the curse of Christ sent wandering for thousands and thousands of years from one end of the earth to the other, from the South pole to the North pole, from the eastern coast of the Pacific across Asia, Australia, Europe, and Africa, over the mighty Atlantic, to the western coast of America and back to Asia, until the day when all mankind will have to appear before His throne and bow to the final judgment—like this ever-wandering Jew, the epidemic Asiatic cholera travels along the paths of commerce, follows the highways of nations, and thus step by step invades every place where the industry of men seeks to form a connecting link in the great chain of international intercourse.

Formerly, ere steam whirled us rapidly across a continent, when the slow-sailing ships and the camels of the eastern caravans were the only means of human intercourse between the East and West, the South and North, the dreaded malady marched from country to country with the same slowness that characterized the commercial relations of nations. But in modern times the death-dealing disease follows the roads of commerce with the rapidity with which in the present era one land maintains its relations with another.

One significant fact was early learned from the observation that the cholera always progressed from one locality to another in the manner of human intercourse. The poison causing the disease could not be in the atmosphere, otherwise its spread would have taken place in the direction of prevailing winds, and the infection of localities would have happened sooner than by human means an article may be transferred from district to district. There is no case on record where the malady had developed itself *eo ipso*, and those in-

*A lecture delivered January 5, before the Philadelphia Society for Organizing Charity.

stances which used to be cited as examples proving the possibility of the outbreak of cholera without its pathogenic contagion having been imported, have since been demonstrated as fallacious. If science has established one indisputable fact, it is that the source of the disease comes from the Ganges, and the importation of the infectious material is the first and most essential condition for the appearance of cholera in any locality. But that the air did not contain and spread the contagion. and that this had to be carried to a district ere the latter could be infected, were two truths which proved to the scientific world that were the agent causing the disease but known and tangibly demonstrated, the prevention of its introduction would become a probability. The main point was, therefore, the discovery of the pathogenic element of the infectious material which produced the cholera.

It is my intention to-night to give you a full resumé of all that to-day is known concerning this disease. Should I, therefore, occupy a little more time than that usually allotted to a lecturer, I hope you will pardon me if I assure you that you will leave this room to-night in the possession of all the knowledge that the most accomplished physician may have to-day of this disease.

For a better understanding, as not all my hearers are physicians, I may be permitted first to give you the history and a description of the disease before I consider the most vital point—its cause.

The name cholera is derived from the Greek $\chi o\lambda\acute{\eta}$, bile, and $\rho\acute{\epsilon}\omega$, to flow. Epidemics of the disease are known to have occurred at various times for several centuries in the Indian Archipelago. But it was not until 1817 that the outbreak of a violent epidemic in Jessore, in Bengal, specially drew the attention of the medical world to the disease, which at that time caused the deaths of thousands of Europeans and native-born, by spreading nearly over the whole of British India. For three years the malady continued its ravages, invading Ceylon and the neighboring islands, and then it suddenly assumed still greater proportions by infecting China and Persia. 1823 it reached Russia, and from that time on it continued steadily its march west, fresh epidemics appearing at intervals in India, and giving new food to the disease. 1830, a new outbreak in Persia and along the shores of the Caspian Sea finally extended into Europe, and caused in the whole Russian empire immense ravages, the mortality being so great as to produce the utmost consternation all over Europe. Soon the rest of Europe became invaded, and during the year 1832 its disastrous effects were felt in Great Britain. Then the contagion crossed the Atlantic and the continent of North America was also infected, while in 1835, Arabia, Turkey, Egypt, and the whole of North Africa, gave the proof that the epidemic, starting in 1817 in Asia and continuing up to 1837, whithin these twenty years had visited a large portion of the world.

In the year 1841, another great epidemic broke out in India, and soon extended over a still wider area than the former. Entering Europe in 1847, it passed through Russia and Germany, over to England, and thence to France, whence it was carried to our country, and subsequently to the West Indies. This epidemic seems to have been yet more deadly than the first, especially in Great Britain and France. A third great outbreak took place in 1850, and made its appearance three years later in Europe, where it was specially destructive amongst the Crimean armies, but less violent in England. This epidemic was, however, specially severe in North and South America. Since then, minor and more local epidemics have at times been observed in Russia, Turkey, and Western Asia; but the disease never again obtained a foothold in Europe, until the outbreak about two years ago in Egypt and Calcutta caused its transportation to Toulon, whence it spread to Italy and Spain, and ultimately reached Paris, where it still rages, though, on account of the cold weather, at present not with great vehemency.

This malady, since the disappearance of the Plague or the Pest, and since the cessation of the grave epidemics of small-pox, probably more dreaded by the people in general than any other infectious disease, is usually characterized in what seems to be its normal type by three stages.

The first stage, or that of cholera-diarrhœa, shows itself simply by the symptoms of a common, mostly painless, diarrhœa, which, generally making its appearance after an error in diet at a time when the cholera is epidemic in a locality, is but too often neglected. It is exactly like a common summer-diarrhœa, and in its beginning rarely associated with vomiting. If early attended to, the patient generally completely recovers within one or two days, and is exempt from the graver disease during the whole epidemic. But if interfered with too late, or left to itself, one of two things will happen: either death sets in rapidly by the diarrhœa suddenly assuming all the characteristic signs of genuine cholera discharges, accompanied by vomiting, or gradually the other stages of the disease develop themselves.

In the second stage the diarrhœa continues, but

increases a great deal in frequency, and the discharges, greatly augmented in quantity, take on the appearance of rice-water. Still more frequently there is no prodromic stage of common diarrhœa, but suddenly, often during the night, the most violent diarrhœa sets in, the evacuations having from the very beginning the character of rice-water, consisting of large quantities of disintegrated epithelium and specially peculiar by the total absence of all the constituents of bile. The rice-water-diarrhœa has scarcely lasted one or more hours, when copious vomiting of the same rice-water-like masses, and accompanied by intense pain in the region of the stomach, and great thirst, set in.

With the appearance of this vomiting, the graver symptoms follow each other in rapid succession, and what might have first seemed to the uninitiated an attack of cholera morbus soon presents to the trained eye the picture of the justly dreaded Asiatic disease. Cramps of the legs, feet, and of the abdominal muscles, cause the unhappy sufferer the greatest agony; and while the mind continues clear and the more feels the torturing pains, the fatal stage of collapse is ushered in.

The face assumes a cadaverous hue, the nose becomes pointed, the eyes sink back into their orbits, deep dark rings surrounding them, and the blue lips, blue finger-nails, and ice-cold, dry, and wrinkled skin all denote that the excessive drain has emptied all the vital channels of their fluids, and that life must be despaired of, if the symptoms do not soon ameliorate. More and more pinched appear the features, the external integument assumes a bluish or purplish tint, colder and colder becomes the body; the pulse at the wrist is imperceptible, and the vox cholerica, that peculiar hoarse whisper which generally foretells the fatal issue, already seems to come to us from beyond the grave. Often death sets in in less than one day, and at the beginning of an epidemic cases are not rare, where the collapse is so sudden and so complete, that life departs in less than one hour.

It still happens at times that recovery takes place even from the stage of collapse. Then reaction sets in. The dangerous symptoms cease; the heart regains its power; in some unaccountable way the vessels once more become filled with fluids, the reëstablished circulation causes the reappearance of the pulse, and the disappearance of the varied hues of the skin; the bodily heat is restored, and vomiting no longer harasses the sufferer. The diarrhœa sometimes still continues for a while, or the patient falls into a typhoid condition, in which he may be again brought near to the grave. As a general rule, convalescence is the slower and relapses occur the easier, the further the patient had progressed in the stage of collapse. Occasionally, also, various complications arise, which still more increase the danger to the victim; but with rare exceptions the disease presents the picture as described, only the duration of each stage varying in the different individuals attacked.

That so grave a malady, causing such enormous ravages, should have attracted the attention of medical minds from its first appearance, may be presumed. The most careful researches were made with the intention of discovering the morbid agent which caused this dangerous epidemic disease, but for a long time in vain. Then, about fifteen years ago, an observation was made which promised a great advancement in our knowledge of infectious diseases.

At the boundary between the animal and vegetable kingdom there is an immense empire of minute beings, too small to be visible to the naked eye. So difficult becomes here the distinction between the animal and the plant, that even experts for a long time were in doubt to which of the two kingdoms these micro-organisms belonged. To-day the majority of observers incline to the belief that they pertain to the vegetable kingdom. There are two great subdivisions of these microbes, hyphomyceti and schizomyceti. The first so-called moulds or fungi, multiply mainly by the aid of spores. They are parasites, many of which give rise in the human being to diseases of the skin and of the mucous membrane, as favus, thrush, etc. That they do so, is to-day denied by no scientific authority; their destruction by appropriate remedies is at once followed by a disappearance of the disease. The propagation, on the the other hand, of the schizomyceti takes place mainly by division. It is with the last, that we have to do in cholera.

Most of the schizomyceti have a rod-like form, and as a rod, in Greek is called *Βακτήριον*, they have received from science the name of bacteria. But not all bacteria have exactly that shape, and according to their form, they have been arranged in six classes, called—

1. Micrococci or cocci, characterized by their circular shape.

2. Bacilli, by which term are understood all rod-shaped bacteria, whether short or long.

3. Bacteria proper, as which science recognizes only the very shortest bacilli.

4. Vibriones, also rods, but of wavy shape.

5. Spirilli forming short, stiff screws; and

6. Spirochaeti, which appear as long flexible screws.

As many of my kind hearers may not be thoroughly informed concerning these minute beings, a special kind of which forms the pathogenic element, the real cause of Asiatic cholera, permit me to mention a few data regarding them:

Of one single bacterium, which during the first hour has divided into two, these within another hour into four, and within three hours into eight, after twenty-four hours have already become sixteen and one-half millions, after two days two hundred and eighty-one and one-half billions, and after three days forty-seven trillions. If in this manner the development and multiplication could progress unimpeded, the breed of bacteria, springing from one germ of about $\frac{1}{500}$ mm. in length, and $\frac{1}{1000}$ mm. in thickness, within less than five days would completely fill all the oceans of the earth; and the descendants of one single micrococcus, whose weight is so little that sixteen hundred millions of them weigh but one grain, would within three days reach the enormous weight of fifteen million pounds.

If nature had placed no impediments in their way, how soon would these diminutive little beings overpower every living organism! But they can propagate only under certain conditions. For instance, their most common kind, the septic bacteria, cannot obtain sustenance from the healthy living organism. For most others the first condition necessary for their development is their entrance into the living human or animal body; and what difficulties they have here to overcome, may be judged from the fact that in the blood and tissues of *healthy* beings not a single bacterium has ever been found.

But the enormous propagation of septic bacteria at once begins when death has interrupted the mechanism of life, and the organized tissue having ceased its motion, is decomposed, decays, ferments and putrefies. And it is to-day a recognized fact, undisputed by any authority, that the process of putrefaction, by which the dead organized substance loses the form and the composition of its constituent parts, is not only accompanied by the development of bacteria, but, in fact, caused by it and kept up by it alone.

And not only decay and putrefaction are caused by these microbes; there are many chemical processes, known by the name of fermentations, which the celebrated researches of Schwann, Pasteur, Ferd. Cohn, and others, have proven to depend upon the vital process of bacteria, or other micro-organisms related to them. For instance, alcohol fermentation, the process by which sugar is changed into alcohol and carbonic acid, is caused by the activity of the yeast-plant. When fermented fluids become acid, the fact depends upon the change of the alcohol they contain into vinegar; and as Pasteur has demonstrated, the excitor of the vinegar fermentation is another bacterium. If milk becomes sour, a rod-shaped schizomycete is responsible for it; and the peculiar phenomena known as pigment-fermentations, owe their origin to a micrococcus. The remarkable incident, which in times passed by caused so much religious superstition, viz., that on food, and especially on the holy wafer used in communion, suddenly appeared a drop of blood, or rather of red coloring matter, simply depends upon the decomposition of animal and vegetable substances produced by the same micrococci (Monades prodigiosæ, Ehrenberg). Many other discolorations brought about in moist air on potatoes, cheese, boiled eggs; etc., all originate in the action of micrococci; while the bluish and yellowish tint sometimes assumed by milk, and the green and blue color of pus, are produced by rod-bacteria.

But the researches of modern times have demonstrated the fact with positive, undoubted certainty, that the activity of bacteria is not limited to the decomposition of *dead* organic substances, but that it also extends its fiendish power to the destruction of the processes of life of the highest organized beings—the human race and the animals nearest to it. Amongst many innocuous schizomyceti, there are some pathogenic kinds, which not only live and easily propagate in the interior of the living organism of warm-blooded animals, but which even seem to find there their only conditions of existence.

Many years ago the suspicion was awakened that some of the infectious diseases are caused by living organized poisons. It is remarkable that in 1840 Henle published in his work a series of logical deductions, based upon scientific facts, by which he proved the necessity of a *contagium vivum* being the pathogenic cause of infectious diseases. What he then supposed, to-day is proven.

But a new impetus was given to these researches, when facts became known which showed that parasites were far oftener responsible for morbid conditions than had ever been dreamed. Certain diseases of the skin and of the mucous membranes (as favus, herpes tonsurans,

aphthæ, etc.), were proven to be caused by parasites ; and Virchow finally demonstrated that a very dangerous internal disease, trichinosis, hitherto supposed to be due to a miasm, was produced by the immigration of a highly organized animal organism, the trichina spiralis.

As logical conclusions, based upon scientific data, pointed to a contagium vivum, and as the deffnite proof had been adduced of parasites acting as morbid agents in and upon the human body, the idea more and more took hold of the medical profession, that in every infectious disease a living contagium was the pathogenic element. And during the last decade—especially, however, during the last two or three years—discoveries have been made, establishing the correctness of this view.

The first discovery of this kind Pollender and Brauell made, independently of each other, by detecting peculiar small rods in the blood of animals and human beings suffering from anthrax. Thanks to the labors of Davaine, Bollinger, Klebs, Pasteur, and especially Koch, it is now generally recognized that these small rods are genuine bacteria, species bacilli, and that they are really the pathogenic cause of anthrax.

Investigators next succeeded in demonstrating the constant presence of certain bacteria in all morbid processes belonging to the great group of septico-pyæmic diseases.*

Obermeyer then showed the presence of innumerable screw-bacteria in the blood of persons suffering from relapsing fever. This fact made a profound impression upon investigators, and from all sides proofs were soon adduced. As further acquisitions, definitely proven, may be considered the discovery of lepra-bacilli by Hausen and Weisser, of the typhoid-bacilli by Klebs, Eberth, Koch, of the tubercle-bacilli by Koch and Baumgarten, and of the bacilli of glanders by Schütz and Israel. These micro-organisms can be easily demonstrated in recent cases, if the methods of research described by their authors be employed ; and their constant occurrence in the diseases mentioned is generally acknowledged.

All these discoveries had been made, when the outbreak of cholera in Egpyt and Calcutta gave scientists an opportunity carefully to investigate this disease. The German government sent a commission to the infected regions. At the head of it was a man already well-known in science as the most eminent authority on bacteriology, Koch, and he at once employed all his energy for that one purpose. It will here be necessary for me to explain to you some of the difficulties which have to be overcome in these investigations.

Most bacteria so greatly resemble each other in their shape, that only the most expert, and he not always, can recognize the species. For instance, those causing glanders, the fatal disease of horses, those of tubercle, of anthrax, and of cholera, at some time or other have nearly the same shape. One appears a little thicker, another more rounded at one point, a third slightly longer ; but if we remember that they are about the $\frac{1}{1000}$ of an inch in thickness, and the $\frac{1}{500}$ of an inch in length, we may imagine how slight the difference must be, when one is an immeasurable bit smaller or thicker. Whoever, therefore, thinks that all that is necessary to discover a specific bacterium in any disease is the microscopical examination of the diseased tissue, will make a great mistake. For in most cases not only one but several species of these microbes are met with. Whenever a specific bacterium has invaded the tissues and caused inflammation, and when later decay and mortification set in, the processes last mentioned are caused by other micro-organisms, which soon deprive the specific microbe of its vitality. It is thus that nature sets a limit to their ravages. We usually find, therefore, the specific microorganism pure only in very recent cases of infectious diseases. Then, if the bacterium has selected as its favorite seat the intestines, we have another difficulty to overcome ; for in the bowels are normally met with different species of animalculæ, which are, however, innocuous.

The first difficulty, therefore, is to determine which of the bacteria observed is the specific one. When we have succeeded in this, the important question arises, is it really a new and specific bacterium, or some variety already known ? It would have been impossible even to arrive at a decided result in this respect, and the science of bacteriology would still be where it was ten years ago, had it not been for Koch's discovery of pure culture. This process is as follows:

A soil composed of gelatine, of which it is kuown that it is perfectly aseptic, *i. e.*, completely free from any micro-organisms, is placed on a convenient glass plate, or in a reaction-glass, such as are used for chemical analyses. Upon the surface of this fertile soil the suspected bacteria are spread, and their development is then watched. It has been discovered that every species grows under different conditions and in a different man-

*Introductory of Prof. H. Engel, delivered in the aula of the Medico-Chirurgical College, at the opening of the Winter Course, October 6, 1884. Reprint MED. ARD SURG. REPORTER, October 12, 1884.

ner. For instance, one kind will develop only under a temperature of 101° to 104°; another one will lose its vitality if exposed to a greater warmth than 99° Fahrenheit; again, another will not at all multiply except on a certain albuminous soil, consisting of the serum of the blood; another must have the white of an egg; another, beef-tea; another the starchy base of a potato, etc., etc., before it can ripen. Then the various methods of coloring employed by microscopists to show plainer certain micro-organisms, so that they may be distinguished better from cells and other parts of the tissues in which they reside, act in a very different manner upon the various species. Thus, for instance, the bacilli of glanders, tubercle, and anthrax look alike, and they are stained by the same coloring material; but while those of anthrax take on the coloring without difficulty, those of tubercle and of anthrax have to be exposed to its influence for a considerable length of time. Then the bacilli of anthrax after having been thus stained, easily again yield their color under the influence of acids, but those of tubercle resist even the action of sulphuric acid. I mention these instances to show how, in the case of the micro-organisms causing tubercle, of those producing anthrax and of those giving rise to glanders, a distinction between them can be made only after their behavior under the influence of coloring material has been determined.

But neither the knowledge of the soil in which they grow, nor that of the conditions most favorable to their development, nor that of their response to the action of dye-stuffs, is sufficient to establish in every case the identity of certain bacteria. To enable us to do so, we must practice Koch's pure-culture method. From the soil in which the various micro-organisms taken from the diseased tissue were allowed to mature, the one bacterium is removed which we wish specially to examine. Under the strictest aseptic precautions, taking care that no other microbe present in the atmosphere may be accidentally mixed with the micro-organisms under investigation, the special bacterium is carried to a soil which seems specially adapted to its development, a fact which has often first to be determined by a long series of observations. Upon this soil the behavior of the microbe is studied, and experience has shown that every pathogenic bacterium develops in a different manner, but each species always in the same. After from two days to three weeks—thus greatly varies the time in the different species—there appears at the point of the soil where the bacteria had been deposited, a small elevation or depression, either of the shape of a circle, or of a star, or of some other form. Around some of them the soil is dissolved and has become fluid: others present the appearance of dry scales, and their environs are dry. Not two species of bacteria develop alike. Remember that they all probably belong to the vegetable kingdom; they are plants, and behave as such.

From this short description you will have obtained some idea of the difficulties which have to be overcome in the searching after a special pathogenic micro-organism.

When Koch arrived in Egypt, he and his assistants at once commenced to make post-mortem examinations of the bodies of cholera patients. But notwithstanding the most careful dissections and microscopical examinations, neither in the blood nor in the tissues of these bodies was any specific micro-organism detected. Koch then examined the discharges and the contents of the bowels of cholera patients. There he thought to discover what he was looking for. Certain bacteria, which his experienced eye at once recognized as a species characterized by a form and behavior differing from those of any known to him, always reappeared in the contents of the bowels and the discharges of cholera patients; and the more recent the case, *i. e.*, the more rapidly death had taken place, the more numerous were these bacilli, and the less were they accompanied by other micro-organisms.

But it was not until Koch had arrived at Calcutta that he found an opportunity to dissect several bodies of patients who had died within one hour after having been seized by the first symptoms of cholera. In these cases, the contents of the intestines showed the same characteristic bacteria in their pure culture and in enormous quantities.

Koch at once began the necessary bacteriological investigations. In consequence of their peculiar form, greatly resembling a comma, he gave them the name of comma-bacilli. When subjected to the process of artificial pure-culture, he soon discovered that the comma-bacilli behaved in a manner utterly at variance from that of any other known species of bacteria. At the place of deposit there first appears a grayish speck of the size of a pin's head; under favorable conditions this happens within forty-eight hours. Then the gelatine surrounding this spot becomes completely fluid and a depression shows itself, which has somewhat the form of a funnel, and extends deeply into the gelatine. This peculiar behavior

has not yet been observed in any other species. Koch then endeavored to determine other conditions for its existence, and he found that the comma-bacillus, if deprived of moisture for several hours, loses its vitality, though it may regain its power of reproduction, if then once more exposed to influences favoring its multiplication. But if the bacillus was kept without moisture for a period of twenty-four hours, it was destroyed forever and never again obtained its power of reproduction. His experiments, a description of the details of which could occupy hours, further proved to Koch that the comma-bacillus of cholera did not have a permanent existence—a Dauer-Zustand—which fact, taken together with the inability of this bacillus to live without moisture, explain to us an observation which was made before the discovery of the comma-bacillus. Cholera, when it has broken out in any locality, rages there for a certain time, but if once the epidemic has ceased, it will not reappear in the same district without its having been re-introduced. For instance, small-pox, if epidemic one winter in a city, may have apparently ceased, and none of the inhabitants may fall a victim to it during the following summer. But in the ensuing winter it may once more break out with a vehemency even greater than at first. Such is never the case with cholera; after it has once abandoned a locality the region cannot again become infected except by another epidemic of the same disease. This fact is now explained by Koch's great discovery; the bacillus having no permanent, only a transient existence, its germs cannot lie concealed in the ground or out-of-the-way places to regain their vitality under recurring favorable conditions; having once ceased its manifestations, it does so forever.

Another behavior of the comma-bacillus has still more importance. It can exist only in the intestinal canal, and here only in the small and large bowel. It can only be swallowed, and not inhaled. This is the reason why we never have any lung complications in this disease, and why there is no danger of infection by the atmosphere. The bacillus attaches itself and keeps its vitality only where there is moisture. It is not propagated by the air, in which it could not exist. This explains to us the fact that the disease has always wandered from place to place with the slowness, or rapidity, if you will, of human intercourse. Certainly, the burning of fires, the disinfection of the air, and the exclusion of dry articles of commerce coming from an infected district, are all based upon erroneous suppositions.

The most important fact elicited by Koch was the action of acids upon the comma-bacillus. Koch found that this pathogenic microbe could not live in any fluid of an acid character, and that the stronger the acid the more dangerous it is to the existence of the morbid agent of cholera. In consequence of this indeed important discovery, Koch demonstrated that the comma-bacillus could not pass alive through the *healthy* human stomach. Investigating the mortality records and the reports sent to him from physicians that had enjoyed a great experience in cholera-epidemics, Koch found that not a single individual in possession of a healthy stomach had ever been attacked by cholera; but persons suffering from defective digestion, either in consequence of their having passed through such diseases as typhoid fever, or on account of a chronic malady, or because of an error in diet, were invariably the victims of Asiatic cholera. There is still another fact confirming the truth of these observations. It had long attracted the attentions of statistics, that especially in large European cities infected by the epidemic the greatest number of deaths from this disease always happened on Mondays, and amongst the lowest class of people. If we remember that these people in Europe usually commit their worst excesses in eating and drinking on Sundays, so that the Monday attack of indigestion has become almost proverbial amongst them, we cannot wonder that the most virulent cases of Asiatic cholera should happen on that day. For the normal secretion of the stomach, the gastric juice is the only one of the digestive fluids having an acid character, and the comma-bacillus cannot exist and pass alive through the healthy organ. It matures and multiplies in the intestines, but to do so it must reach the bowels in a live condition, and as it can penetrate thither only by way of the stomach, if this secrete the normal acid juice, the comma-bacillus will receive its death-blow in that same fluid. Should, however, from some diseased condition this gastric juice have lost its acid, germicide character, then the morbid agent of cholera will pass on without any impairment of its vitality, to the regions specially favoring its development.

One other fact proves the correctness of this theory. In the last London cholera epidemic the city was divided into small districts, in each of which a dispensary in charge of an able medical staff attended to the cholera patients. By an accident it was discovered that sulphuric acid, if administered in diluted state in the prodromic stage of cholera-diarrhœa, not only at once put a stop to the diarrhœa, but also protected the indi-

vidual against the outbreak of the graver disease. What had then been determined by empirical observations Koch gave a scientific basis, and we can now see the reason of the beneficial action of sulphuric acid. In persons with a perfectly healthy stomach the comma-bacilli, though they may be and probably are often swallowed with the food we eat and the water we drink, are at once killed on entering the main organ of digestion, and they thus give rise to no disease. In individuals where either the quantity of the swallowed bacilli is too great, or what is far more probable, where in consequence of an error in diet or of some slight morbid condition, the secretion of the gastric juice is sufficiently interfered with, not to be able totally to destroy the bacilli, but not sufficiently to allow them to escape totally unhurt, the micro-organisms have lost some of their vitality, and therefore give rise to the disease in a milder degree, and are then easily acted upon by remedial agents, though if left alone they may gradually regain their normal vitality, and then ultimately produce the most alarming symptoms. Only thus can we explain those cases where the epidemic disease first begins with a rather mild diarrhœa, and later assumes the gravest aspect, if the diarrhœa be not early attended to. On the other hand, in persons whose disturbed condition of the stomach makes the gastric juice inert as far as its influence upon the comma-bacilli is concerned, these microbes reach the intestines in their full vitality, and thus developing without impediment, under circumstances most favorable to them, they give rise to Asiatic cholera in its most virulent form.

Lastly, we also now have an explanation of the fact that the epidemic disease causes the greatest ravages amongst the poorer classes, and in the most neglected districts of large cities. Such people, who are in the habit of eating unripe fruit, who enjoy a warm meal but once a week, if that often, who generally drown their misery in the worst kinds of alcoholic stimulants, who do not care whether the meat they eat has an unsavory odor, or whether the vegetables they swallow are partially decayed—such people, I say, mostly suffer from a disordered state of digestion, their gastric juice is wanting in quantity and deficient in quality, and thus the comma-bacilli pass unharmed through that organ whose normal secretion in the healthy state is the most efficient barrier to the destructive influence of the morbid agent.

It was formerly thought, and is still thought to-day by those not knowing better, that the filthy condition of the houses, and especially of the water-closets, was mainly responsible for the greater number of victims of cholera in such localities. But not only do the facts regarding the state of digestion of these people, and the kind of food they use, fully explain the predilection of the disease for them, an observation of Koch directly proves that the filthy condition has very little to do with cholera. Koch noticed that the bacteria of putrefaction and decay are natural enemies of the comma-bacilli. Wherever these are collected in large numbers and in full activity, they soon lose their vitality and finally die, if septic bacteria become added to them. Koch has demonstrated this fact even in the bodies of cholera patients. Whenever the comma-bacilli pass unharmed and in large numbers through the stomach and reach the intestines, they seem to develop like other pathogenic bacteria a special poison, which like the ptomaines at once overwhelms the human organism and thus cause death within an hour, under the symptoms of the most profound intoxication. At the post-mortem of persons that have died thus suddenly of cholera, the bowels are filled with innumerable masses of comma-bacilli in their pure culture, without the admixture of other bacteria; and if one drop of the fluid surrounding them is injected into the circulation of an animal, this dies at once under the symptoms of deep intoxication.

If death does not take place thus rapidly the mucous membrane of the intestines becomes inflamed, and in this tissue and in that of the tissue beneath and that surrounding the solitary glands and Peyer's patches the comma-bacilli are met with in every stage of development. But if life is still more prolonged, so that death sets in at the end of a week, the tissue hitherto inflamed appears mortified. Deprived of its nutrition, as the places surrounding the capillary vessels are so filled with comma-bacilli that they compress the blood-vessels and cut off the supply, the tissues decay, and at once another species of bacteria, the so-called septic, or bacteria of putrefaction, show themselves.

Henceforth the further progress has been studied from day to day by post-mortem examinations of bodies, where the patients died on the seventh, eighth, ninth or tenth day, and so on. Here Koch made the important discovery, that day by day the septic bacteria increased in numbers, and encroached more and more upon the comma-bacilli, which finally were overwhelmed, as it were, and suffocated by the superior numbers of the septic bacteria, until finally comma-bacilli were met

with no longer. There were cases where the symptoms of cholera had ceased and yielded to those of a low typhoid condition—a septic fever.

While these observations thus explain the symptoms observed in the disease, they have led to another far-reaching conclusion. The discharges of cholera patients are usually emptied into water-closets, where decay and putrefaction are continually and actively carried on by septic bacteria. Left to themselves the comma-bacilli present in these discharges and contained in the water-closets, are soon overpowered and destroyed by the septic bacteria. It is at least doubtful, therefore, whether the disinfection of water-closets, as usually practiced, will not tend to favor the propagation of the comma-bacilli rather than to destroy them. In Toulon, and recently in Paris, observations of this character have been made. When the disease broke out in these cities, and as usual attacked mainly the poorer classes, the most active disinfection was practiced by the authorities in these localities. But not a little were they amazed when they discovered that the disease seemed to appear with renewed energy, and increased its virulence rather than diminished it. While we, therefore, should take care to prevent the accumulation of filth and similar moist material in the streets and houses, as the comma-bacilli develop best where there is moisture, we should not be too hasty in our efforts of disinfection, especially as regards the places into which the discharges of cholera patients are dumped.

While Koch was in Egypt and Calcutta, he made two observations, which explain the manner in which the Asiatic cholera is often propagated, and which, at the same time, prove the correctness of Koch's theory, as they really amount to self-inoculation. In a village in Egypt, some eight miles distant from the nearest infected place, and thus far free from cholera, one day the epidemic broke out, and in about thirty families many a one fell a victim to the disease. A careful investigation was started, and it was discovered that the members of these families had all been drinking water from a certain brook. Two days before the outbreak of cholera in the village a washerwoman had brought from the neighboring infected city a large amount of linen of cholera patients, and washed the same in that very brook.

In a southeastern direction from Calcutta, where then cholera raged, several villages were situated, in which no case of cholera happened until one day, in the village the most central of the others, about 200 individuals were suddenly taken sick with the disease, and died. There, also, careful investigations were made, and it was discovered that all those persons had been supplied with water from one special tank. It leaked out that several women who had received the linen of cholera-patients from Calcutta to have it washed, had thrown this linen into the tank and there washed it.

In both cases, the water—in the one, that of the brook, and in the other, that of the tank—was examined microscopically. Any small organic substances, as small splinters of wood, etc., taken from these two waters were found to be literally covered with innumerable comma-bacilli in the most perfect state of pure-culture.

Koch, on examining soiled places of cholera linen, invariably discovered in them living comma-bacilli as long as the soiled places were moist; but whenever such a place had been completely dry for twenty-four hours, all the bacilli were dead. The same was the case with the discharges of cholera-patients.

I have thus far tried to prove to you that the comma-bacillus is a species of its own kind, possessing certain characteristic peculiarities not owned by others of the same genus, and that these peculiarities coincide with what we know of those of the morbid agents and the manifestations of cholera. Notwithstanding the facts and observations quoted would alone be sufficient to prove these bacilli the pathogenic element of the Asiatic disease, I have yet to mention two others ere the actual scientific proof may be said to be clearly established.

It must be demonstrated that the comma-bacillus is not met with in any other infectious disease. Koch, with all his experience, says that he has never found it except in cholera. But, a a few months ago, two German observers thought they had discovered the same bacillus in the disease known as cholera morbus. I have received Koch's reply, which he published a few weeks ago in one of the best German medical papers, and which has not yet appeared on our side of the Atlantic. In this reply Koch proves that the two anthors were not acquainted even with the rudimentary knowledge necessary for these investigations; and he then shows that the bacillus which they detected, and which they considered the same as the comma-bacillus, is a totally different variety, and was not even contained in the discharges which they procured from their patients, but was an accidental admixture from the atmosphere, the two authors not having employed the necessary precautions to exclude such an oc-

currence. As this was the only case where the comma-bacilli were said to have been found present in another disease, we may take it for granted that they are met with only in Asiatic cholera.

But the final proof is the direct infection. For a long time Koch did not succeed in producing genuine cholera in animals by injecting comma-bacilli into their circulation. He explained this failure by the well-known fact that there are some diseases which affect only the human being, and cannot be communicated to the lower animals. Had he but thought of his own discoveries, he would himself have tried the experiment in a different manner, and obtained success. You will remember that Koch never found the comma-bacilli in the blood or in any other organ but the intestines of cholera patients, and that he himself proved that the comma-bacillus cannot pass the healthy stomach. It was, therefore, to be foreseen that the introduction of the comma-bacilli into the circulation of animals would not produce the symptoms of cholera, as this micro-organism does not develop in the blood. Neither could any result be expected from swallowing. All animals that, like the human being, have a stomach prepared to digest alike meat and vegetable food, usually enjoy a very healthy stomach, as they do not expose it to the same rough treatment that human beings are apt to subject their main organ of digestion to.

Professors Rietsch and Nicati ultimately succeeded, during the Marseilles epidemic, in producing in animals the characteristic symptoms of cholera, by injecting the comma-bacilli which had been obtained by artificial pure-culture into the duodenum, that is, the upper part of the small intestines, so that the bacilli had not to pass through the stomach. I have received from Koch the latest and most direct information a few days ago, that these experiments were repeated in the German Imperial Board of Health. Dogs and guinea-pigs were employed for this purpose. Koch first artificially developed the bacilli by pure-culture. He then so diluted the fluid of the pure-culture that he obtained the one-hundredth part of a drop of it, and this minute quantity he injected into the duodenum of a large number of animals. They all died within from one-and-a-half to three days under all the symptoms of Asiatic cholera. Their post-mortem examination revealed exactly the same condition of the intestinal canal that is met with in human bodies of patients who died the second or third day from the disease, and in the intestines were found innumerable quantities of comma-bacilli in the state of pure culture. Considering the smallness of the dose employed, and the fact that death set in two or three days later, the possibility of poisoning is excluded.

The final proof that the comma-bacilli are really the causing element of Asiatic cholera has therefore been adduced. It might interest you to know that the foremost of America's physicians, Prof. Austin Flint, in New York, has also declared himself convinced of the truth of the discovery.

At last medical science is in the condition to become the real benefactress of the human race. It would lead me too far to-night were I to mention all the possible consequences, all the probable results, all that we can learn from this discovery. I may do so with your permission at some future time. But that you may know how to visit with safety cholera patients, and to live amongst them, let me tell you what the king of Italy did. While the disease was at its height in Naples, he arrived from Rome and visited the cholera hospitals in Naples. He escaped uninfected, but why? All his food, and all the water and wine he drank, were sent to him from Rome in sealed and hermetically closed bottles and boxes. As he could not become infected by way of inhalation, but only by the food and water swallowed, care was simply taken to have the food and drink pure, free from comma-bacilli. Should the cholera visit us, have your main organ of digestion in the best possible order, avoid errors in diet, live on the plainest food, and have every drop of water you drink, every particle of food you take, thoroughly boiled, and you will escape all danger from infection. And, if notwithstanding these precautions, living comma-bacilli reach your intestines, and indicate their presence by the first symptom of the mildest diarrhœa, at once have recourse to your physician, and putting yourselves under his care, minutely follow his directions, and the once-dreaded disease will soon become a matter of little concern to you personally.

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. Seelye, A. M., M. D.

Convulsions.

The first patient shown to the class was a man of about 35 years of age, well-built, muscular, and healthy in appearance, who had been picked up in the streets and brought to the hospital less than half an hour before. He had been in an unconscious condition ever since, and as no one knew anything about him no history could be ob-

tained. He had continued to exhibit, since his admission, the phenomena which were now observed by the class. Immediately upon our entrance into the room where he was lying upon a bed, he went into a convulsion. First, there was a tonic spasm of all the muscles of the body, beginning with the face and then extending to the right arm and leg, and then becoming general. The legs were first drawn up as far as possible, and then were straightened out again, and the same was true of the arms: and it seemed, therefore, that the spasm invaded the flexor muscles a little sooner than the extensors. But after a moment all the muscles of both classes were in a state of rigid contraction, the extensors and pronators of the forearm, however, more than overcoming their antagonists. The diaphragm and the other muscles of respiration were fixed, and breathing was temporarily suspended, and the face was flushed, and the vessels congested and prominent. The pupils were in a semi-dilated condition. After this state of things had continued for twenty or thirty seconds, the rigid contraction of the muscles gradually relaxed, and a clonic spasm began which grew steadily more and more violent, the arms and legs being thrown wildly about, and all the muscles being in a state of convulsion. And now the respiratory muscles were put into a rapid action, and consequently there was loud, stertorous, and gurgling breathing, with violent movements of the chest. This condition of affairs lasted about two minutes, and the spasm gradually lessened, and then as the muscles were relaxing the urine was passed involuntarily. The pupils were now examined and found to be more contracted than they were during the spasm. The patient had scarcely become quiet after this attack, when a second one began, with a very severe and long-continued tonic spasm. In this one opisthotonos was a marked feature, the patient resting for several seconds only upon the shoulders and heels. As this tonic spasm subsided it was not succeeded by any marked clonic convulsion as in the first attack. So he went on for over half an hour, having one spasm after another, some tonic and others clonic, irregularly, repeated every two or three minutes. During these attacks the pulse was very rapid and the respirations deep and violent, and on one occasion, just as he was entering upon a convulsion, he uttered a loud groan resembling the "epileptic cry." He did not foam at the mouth, but the loud gurgling noise made during the violent respirations proved that there was a profuse mucous secretion in the respiratory passages. That he had bitten his tongue in some of the earlier attacks was evident from the fact that the parts about his mouth were bloody; but the possibility of this accident being repeated was prevented by placing a gag between his teeth.

Gentlemen, you observe here all the symptoms of a violent epileptiform seizure. There is complete convulsion of all the muscles, beginning with a tonic spasm and ending in a clonic spasm; and the pupils, which were dilated during the spasm, contract as it passes off. The involuntary passing of the urine is also a frequent phenomenon after an epileptic seizure. And you notice here that the water is clear and light-colored, and not unfrequently after the attack there is found to be albuminuria. But before you came in his urine was drawn off by a catheter and examined, and it was not found to contain albumen. You observe here that his urethra opens on the under side of the glans. This is a congenital defect sometimes met with, and is called hypospadias.

Now the question arises as to what is the cause of these spasms. I think we may exclude epilepsy pure and simple, inasmuch as in epilepsy the patient is not subject to such frequent repetitions of the convulsions. The convulsions may be very violent, and two or three may occur in succession; but usually after such a discharge of nervous force the patient remains quiet and in profound coma for several hours. But these convulsions would seem to depend upon some cause that is constantly acting. If we exclude epilepsy, uræmia and apoplexy suggest themselves. I told you that the urine has been examined and that no albumen was found in it. This would tend to exclude uræmia as a possible cause; for I think that in the great majority of cases of uræmic convulsions you will find albumen in the urine. But you may get albumen in the urine without its necessarily indicating any kidney disorder. Perhaps the best way of distinguishing between uræmic convulsions and those dependent upon some cerebral lesion is by means of the eye. If they are due to apoplexy, with an effusion of blood upon only one side of the brain, you are apt to have some irregularity of the pupils, while in uræmic convulsions this is not the case. During a uræmic convulsion the pupils are dilated at first and afterwards they become contracted. So if the pupils are symmetrical, the chances are that there is no lesion of the brain with an extravasation of blood upon one side. But in case there is an extravasation pressing equally upon both sides, this rule will not hold good. But if you get a permanent irregularity in the pupils and an irregularity in the movement of the eyes, then you have good grounds for supposing that you have to deal with an extravasation.

Now, this patient is a pretty young man for apoplexy, and his arteries, so far as I can ascertain, are normal in condition, and his pulse is not hard and firm, but is soft and natural. And you may remember that I have told you that apoplexy is apt to occur in people in whom there exists diseased arteries, together with an enlarged heart and granular atrophy of the kidneys. But I do not find any cardiac murmur or enlarged heart here. I think, then, that we may fairly say that the conditions which usually accompany apoplexy being absent, this is not a case of apoplexy, or else if it is, the hemorrhage is so equally distributed on both sides, or is in such a locality as not to act upon the pupils.

But then the absence of albumen in the urine is against the supposition that uræmia is the cause of the convulsions. For in all the cases of uræmic convulsions which I have seen the urine has been albuminous. It is possible, however, that we have here to deal with a case of convulsions produced by alcoholism. But we only come to this result by a process of exclusion. Violent convulsions are apt to occur in persons given to the use of alcohol in excess. There is no odor of alcohol in this man's breath, however.

Now, what are you to do in such a case as this

when you are in doubt as to the nature of the convulsions? This is one of the most puzzling and difficult questions. If he is suffering from the effects of an apoplexy, there is nothing which you can do to relieve the patient. For even though you were to bleed him, you would not be doing him any permanent good. But if the convulsions proceed from uræmia, then you have several courses before you. Undoubtedly, the most prompt and efficient means of relief is by blood-letting; though diaphoresis, catharsis, and diuresis, may also be employed to relieve the system of the poison. But these latter means are too slow to employ under such circumstances as are presented here, where the urgency of the case demands immediate measures for relief. In alcoholic convulsions, however, it is, as a rule, not best to bleed the patient, unless the case is complicated with diseased kidneys. But brisk purgation and diuresis are the best means of relieving the circulation of the alcoholic poison which gives rise to them. Now, I cannot say what is the cause of the convulsions in this case; but as I watch it, I am much impressed with the number and violence of them, and this leads me to think that they may be uræmic. So believing that they are dependent upon uræmia, even in spite of the absence of albumen from the urine, I am disposed to resort to venesection as a means of relieving him. So Dr. K. will now perform this operation and we will watch the results.

Operation.—A few turns of a roller bandage were first wound around the arm above the elbow so as to obstruct the venous circulation, and thus render the superficial veins prominent; and then with a scalpel an opening was made into the median vein of the forearm, just below the bend of the elbow, by a single longitudinal incision nearly half an inch long. The blood came away slowly and irregularly, sometimes stopping completely, because the skin had not been cut by the incision directly over the opening in the vein, so the blood coagulated between the vein and the skin, and thus stopped the flow. In this way about eight ounces of blood were taken, and it seemed to lessen the frequency and violence of the spasms at once. And in a few minutes more the patient began to make semi-voluntary movements, such as scratching the buttocks and thigh, which were already scarred with old scratch-marks, and he seemed to be very restless, throwing his arms and legs about. But the true spasms had apparently nearly ceased. The bleeding was checked by pressure over the wound in the arm, and by bandaging it from the wrist to the elbow.

In the case of a colored woman who was brought to the hospital the other day under just such circumstances, blood-letting was resorted to, in the hopes that the convulsions were dependent upon uræmic poisoning. But she died soon after, and the autopsy showed that the cause was really a meningeal hemorrhage. This shows you that the difficulty of making a diagnosis in these cases is sometimes very great, and how easy it is to make an error. But we are justified, I think, in trying to relieve these patients, even though we are in doubt as to the cause of the evil. As to the quantity of blood which should be taken, it is not possible to give any definite rule. You are safe in drawing off from eight to twelve ounces, and I think that if you do not got any relief from the removal of twelve ounces, you are not likely to by taking more; for this is enough to relieve the high pressure of the blood and to diminish the violence of irritation produced by the uræmia. About eight ounces of blood has now been taken away from this patient, and I think it has diminished the heart's action somewhat; for whereas the pulse was very rapid before, it is now very regular, and beats only one hundred and sixteen per minute. There is still some tendency to convulsion about the muscles of the jaws and wrists, but there are no longer any large convulsive movements. As I hold his wrist I can feel every now and then a slight spasm of the tendons of the flexor muscles of the hand. Sometimes under the influence of blood-letting the effect is very marked in restoring the patient at once to consciousness, as well as in promptly relieving the convulsions.

You see now, gentlemen, that the patient is becoming very restless, but these movements are not at all of the same character as those which you saw a short time ago. But they are irregular and semi-voluntary, and such as are not unfrequently observed in patients after an attack of convulsions. To quiet this restlessness I would suggest a small hypodermic injection of morphia. This is itself a remedy which is sometimes used in convulsions, and it has been employed especially in puerperal convulsions. It acts as do chloroform and ether, by allaying the irritability of the nerve centres, upon which the convulsions depend.

Myelitis.

The next patient, F. W., is a widower, 54 years of age, a native of Ireland, and has no occupation. Was admitted December 21. Gives no family history. Has always enjoyed good health, and has never had rheumatism or malarial fever. Does not drink malt liquors, but for the past few years he has been accustomed to take three or four glasses of whisky a day. For the last five or six years he has suffered more or less from chronic bronchitis, which is always more troublesome in the winter time. A little over a year and a half ago he contracted a chancre, which was followed by a secondary roseola and a swelling of the inguinal glands without suppuration. And last winter he suffered from a kerato-iritis in both eyes. He was put upon the mixed treatment with mercury and iodide of potassium, and the dose of the latter was gradually increased from ten to thirty grains, which caused vomiting. He has now a slightly-marked squamous syphilide on both of his legs. For the past few months he has been troubled with biliousness and constipation. On the 14th of December he was exposed to the rain and cold, and after he got home he had a chill, which was followed by feverishness and a sweat at night. The next day he found that he could not pass his water; so the following day he had a large quantity drawn off by a catheter. At that time he had no pains in the back or legs. The day before he was exposed he took a cathartic composed of senna and manna, which was followed by a violent movement from the bowels; but he has had none since. On Saturday, the 17th, he observed that his left foot and ankle felt numb, and soon after he found that he could not

move that leg; and sometimes it would feel alternately cold and hot, and he would have creeping and pricking sensations in it. Two days after, the same sensations began to appear in the right foot and leg; and they have been gradually creeping up both limbs, until now the boundary line of perverted or lost sensibility is at the level of the umbilicus. Of late he has noticed a sense of constriction across the back. He has passed no urine naturally since the first day of the attack. The left pupil has been permanently dilated or enlarged since the attack of kerato-iritis. He has no headache. Two or three days ago his bronchial cough became very troublesome again. There is now complete loss of power in both lower extremities. On admission his pulse was 98, respirations 20, and temperature 101.2°. His urine is light-colored, and contains a small amount of pus.

Gentlemen, the history of this case, with its attending circumstances, enables you to judge pretty clearly as to the nature of his malady. There is loss of motion in the lower limbs and diminished sensibility, and there are also some subjective sensations of numbness and formication, and an inability to pass urine, and obstinate constipation. The loss of sensation extends upwards to about a line drawn through the umbilicus, but the limit is a little lower down on the right side of the abdomen than on the left, and while the anæsthesia is pretty complete in the left thigh, yet he can feel a little on the right, and the reflex on the right is better preserved than on the left. There is no paralysis of the sphincter ani, but there is a loss of propulsive power in the intestines, which causes the constipation. Now, what have we to deal with here? It might possibly be a congestion of the spinal cord; but in congestion you would not be apt to get such complete loss of power. Or pressure of a tumor upon the cord might cause these symptoms; but they would then have been more gradual in making their appearance. So the true cause is probably some form of myelitis. But whether it is a transverse myelitis, or one which mainly involves the anterior horns of gray matter, is a question, and it is a question which I think cannot yet be positively answered. But the manner in which this attack appeared is very characteristic of the commencement of a polio-myelits of the anterior horns of gray matter. For in this disease there is usually a history of exposure or fatigue, and then a chill, and fever, and disturbances of sensation, and of muscular action, and not infrequently loss of the power of urinating. The disturbances of sensation and loss of vesical power are, however, temporary in myelitis of the anterior horns. But in transverse myelitis, the loss of power and of sensation becomes more and more marked, and there are finally trophic disturbances and defective nutrition in the paralyzed parts, especially of the skin and the muscular coats of the bladder. The interesting point here is that the lesion seems to have begun upon one side of the cord, and then to have travelled over to the other, thus involving both limbs in the paralysis. Now, it is true it is rather early to get trophic disturbances, if this is a transverse myelitis; yet inasmuch as they are absent now, I am inclined to think that the lesion will turn out to be one of the anterior horns, and not one involving the whole of the cord. And other reasons for my not thinking it to be a transverse myelitis are, that there are no pains at night, such as are usually complained of, and no cramps at night, and no cincture sensation about the waist, while there is a partial restoration of the sensibility of the skin. All these considerations lead me to think that the lesion is for the most part confined to the anterior horns. We shall see.

Uræmia.

The next patient is Mrs, A. B., 58 years of age, born in the United States, a widow, and employed as a governess. She came to the city day before yesterday, and went to a strange boarding-house. Nothing more was seen of her until she was found comatose lying upon the lounge in her room, and she seemed to have remained in this condition for ten or twelve hours. An empty laudanum bottle was also found in the room. At 7:30 last evening she was brought to the hospital. There had been incontinence of urine while she was lying upon the lounge. Her son-in-law says that she had been ailing for some time, and she had just come to the city for treatment. This is all he knows about her. On admission, her respirations were 24, pulse 103, and temperature 99.8°. As to her physical condition, the pulse was increased in frequency, and there was œdema of the legs and ankles, and some degree of general anasarca. She was in a comatose condition, but there was no paralysis of the muscles. And there were no reflex movements except about the face. The pupils were narrower than normal, and they responded slowly to light. The respirations were shallow but regular. The pulse was full, slow, regular, and firm, when she was found. That there had been a convulsion was shown by the presence of froth about the mouth, but she had not bitten her tongue. Sensation was abolished. A spot of old ecchymosis was found just above the mons veneris and another upon the left tibia. There was a swelling and deformity of the phalangeal articulations. The urine as drawn by a catheter had a specific gravity of 1011, and one-fifth part of it was albumen, and it contained granular and epithelial casts. Yesterday a purge af castor oil and elaterium was administered, and in the evening she was given a hot-air bath to induce perspiration. Later on she had an epileptiform convulsion, with opisthotonos, which lasted about thirty seconds. Then succeeded a state of coma, in which the respirations grew gradually slower and slower, and they almost ceased. At 11 p. m. she became slightly aroused from the coma. Her temperature was then 103.4°. The hot-air bath was renewed, and she continued to sweat. At 12 o'clock midnight the temperature was 103.2°, and at 1:45 it was still 103.2°, and this morning at 6 o'clock it was 101°, and at 9 a. m. the pulse was 102, respiration 28, and temperature 101.2°. At 11 a. m. the dose of $\frac{4}{10}$ gr. of elaterium was repeated. She could then speak a little, but only just enough to say that her name was Ann. Whisky was also administered, and she was cupped over the kidneys. There was also considerable œdema of the lungs, for the relief of which she was cupped. Digitalis was also given, and the urine was again drawn off. The treatment has had but little effect, and

the œdema and the unconsciousness have continued up to the present time.

Gentlemen, here is another case in which, like that of the man man you saw first, the question arises as to the cause of the convulsions and coma. The history here enables you to arrive at a more definite and positive conclusion than in that case. From this we learn that she was in feeble health before, and she came to the city to consult a physician, and then she was found comatose in her room, with the evidences of having had a convulsion, in the froth about the mouth and the involuntary emptying of the bladder. After she was brought to the hospital she had another convulsion, and she has remained in a more or less complete state of coma ever since. There are no signs of any local paralysis, and she moves both sides of the body equally well. There is no facial paralysis, and no difference in the two pupils. They were contracted when she first came in, and were but slightly sensitive to light. But she responded to the test which we have lately used here, and which has proved of some value for diagnosing uræmic from alcoholic coma. That is, by suddenly slapping the patient's face with your hand, there will be some reflex movement in the irides. Besides, the urine was found to be highly albuminous and to contain casts, and this showed the existence of a structural disease of the kidneys. Hence, the diagnosis was comparatively easy. This is not the history of any other than a uræmic coma. But upon examining the patient objectively, we get some further interesting facts. For her hands show evidences of an arthritis in the phalangeal joints, and some also in the tempero-maxillary articulation, and there are some hard deposits in the ears. And I doubt not we would find the same conditions in other joints of the body if we were to examine them. There is complete ankylosis of one elbow, showing that she has for some time been the subject of a gouty arthritis, and it is not improbable that she has gouty or granular kidneys.

Now, you might ask whether in all cases of uræmic coma I would resort to the same measure as I did in the case of the man you saw first. I think not. And I do not think there would be any expediency in doing this here; for you must bear in mind the age and strength of the patient. He is a young man and can well bear the loss of blood, but I would hesitate before bleeding an old and feeble and anæmic emaciated patient. Here resort has been had to the safer method of depuration by means of a purgative of castor oil and elaterium. But there has failed to be any response to this treatment, as is not unfrequently the case. This may be due in part to the insusceptibility of the patient to the medicine, or in the case of the elaterium it may be due to the worthlessness of the drug, different samples of which vary much in power. She was also put in a hot-air bath in order to induce sweating. But there was very little response to this, too. It is probable that no medication will do any good here. Her age is against her, and she has probably a degenerated heart, and altogether she is in no condition to recover from such a severe shock to the nervous system. The œdema which occurred two or three hours ago is not an infrequent occurrence, and it is often the precursor and the immediate cause of death.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, January 8, 1885. The President, Dr. Shakespeare, in the chair.

Primary Tumor of the Liver in a Child Nine Months Old.

Presented by Dr. E. O. Shakespeare.

Aortic Valvular Disease, with Rupture of One of the Leaflets.

Presented by Dr. Shakespeare.

Malignant Tumor of the Kidney.

Presented by Dr. Shakespeare.

A Large Renal Cyst.

Presented by Dr. Shakespeare.

[The notes of the above cases have been withheld for future publication, and in consequence, the interesting discussion upon them, in conjunction with the case presented by Dr. Longstreth, must also for the present remain unpublished.—Recorder.]

Sarcoma of the Clavicle.

Presented by Dr. G. E. de Schweinitz.

This specimen was sent to me by Dr. John Ashhurst for microscopical examination, and he kindly gives me permission to exhibit it to-night. The tumor occurred in the person of a young girl, S. L. B., aged sixteen, who came to him for treatment last August. She was a somewhat frail-looking, clear-skinned blonde, whose general health up to the time of the appearance of the growth had been satisfactory. The family history was good; none of the other five children composing the family presented any similar affection, nor was there any history of tumor for two generations back. The tumor began at the left sterno-clavicular joint, as a small, nut-shaped swelling, having arisen without known inflammatory or traumatic origin, although, as further stated, they always believed that the patient had in some way, and unknown to herself, received an injury at this point. The growth of the tumor was rapid, and at the end of five months stood out as a prominent swelling, as large as an orange, occupying the inner two-thirds of the clavicle, and was covered by somewhat reddened and thinned skin. Pain, although not constant, was at times a very severe symptom.

On the 7th of last August, Prof. Ashhurst removed the growth, together with the inner two-thirds or three-fourths of the clavicle. Examination of the gross specimen shows it to be a spindle-shaped growth, about four inches long, three inches at its greatest breadth, and two inches deep, which has taken its origin in the medullary cavity of the bone, and gradually become surrounded by a firm fibrous or periosteous capsule. The true tumor tissue is of moderate consistence and a reddish-brown color. Microscopic examination reveals the following points of interest:

The capsule is composed of dense fibrous tissue, from which prolongations pass, dividing the tumor into numerous spaces, which are filled with small round sarcoma cells. These spaces are in many places again divided by a delicate spindle-shaped tissue into small alveoli. In addition to

the round cells, spindle-shaped cells are also seen in spots; giant cells are absent, or at least only a few multi-nucleated cells, relegated to the regions of the spindle cells, are noted. The tumor, I think, should be classified as a small round-celled sarcoma, with an alveolar arrangement. If this tumor be accepted as a variety of alveolar sarcoma, it is somewhat unusual.

Twice before this evening specimens of alveolar sarcomata of the long bones have been exhibited to this Society—one of the femur, by Dr. Nancrede, and one of the knee-joint, by Dr. Formad. At that time Dr. Formad thought the variety of the sarcoma justified a rather more favorable prognosis than usual, while Dr. S. W. Gross, during the discussion, after referring to the somewhat unusual microscopical character of the tumor, thought the outlook for the patient was bad, as this variety of sarcoma is peculiarly fatal. Dr. Formad's prognosis was correct, because in that instance the patient was alive and well, if I am not mistaken, for some time after the operation, and may be now, for aught I know.

In regard to the result of the present case, I am able to speak quite definitely. Although the operation was not successful, and the removal of the growth quite complete, the hemorrhage insignificant, and the recovery of the patient satisfactory, in about two months after the operation the growth reappeared, either in the old wound or about two ribs lower. In this case, then, the truth of Dr. S. W. Gross's remarks has been only too thoroughly proved.

Dr. Shakespeare said that this specimen was of interest on account of the rarity with which similar ones had been presented to this Society. Through the kindness of Dr. de Schweinitz, he had the opportunity of examining sections from the growth, and thoroughly agreed with the exhibitor as to its nature,

Dr. Simes had also examined microscopic sections and endorsed the statements made by the preceding speaker.

Alveolar Sarcoma of the Kidney.

Presented by Dr. M. Longstreth.

The patient, J. E., æt. nine months, was first under the care of Dr. McOscar, to whom I am indebted for the specimens and this history, suffering from an attack of summer complaint. The patient was at that time three months old, and had been ill for a week or two. He was in a state of great emaciation, and upon examination of the abdomen a swelling was found in the right flank. The little patient recovered from the bowel trouble, but the general condition did not materially improve. During the remaining six months of life, the child was only occasionally under observation, and at those times suffered from paroxysms of pain apparently in connection with the tumor. The bulk of the tumor, as felt through the abdominal wall, did not seem to increase greatly up to his death. The urine was not carefully inspected. Three days before death, the pain increased to great violence, and in this condition death came. The post-mortem examination showed the enlarged right kidney more firmly adherent to the posterior abdominal wall, and to the ascending colon and mesentery, as well as portions of the small intestine attached to its anterior surface. The diseased organ weighed 52 ounces, and presented itself as a rounded, slightly oval mass, regular in outline, smooth of surface, and with a moderately firm elastic consistence. The capsular surface was of pretty dense, shining whiteness, with conspicuous small vessels passing over it. On section—which measured 3½ inches by 2 inches in the two diameters—the tissue presented a very varied appearance. In parts, it was of a dense white, perfectly homogeneous aspect; in others, the pinkish-white mass showed streaks of yellow, with numerous small spots of red, and there were also large blood-red areas. In other parts the tissue was breaking down into cysts, of which several large ones were present, the largest of the size of an English walnut. The cysts were all situated on the periphery of the mass, but they did not cause any protrusion of the capsule. At the upper extremity of the mass, there was found a portion of kidney tissue not invaded by the new formation. On section, this portion occupied about one-half inch of the long diameter of the mass, and was seen to be separated from the new growth by a thin partition of connective tissue; externally it showed itself like a lobule of kidney, fitting like a cap on the spherical tumor, as does the supra-renal capsule on the kidney itself. The microscopical examination showed the new formation to be a small round-celled sarcoma. The greater portion of all sections presented cells nearly rounded in figure, imbedded in a perfectly homogeneous basis substance. The uniform area of cells was, however, interrupted by streaks of spindle-cells running in narrow bands, enclosing greater or less areas of round-cell tissue. These circumscribing bands of spindle-cells sometimes formed circular areas looking like the cross-section of a tube; in other places the bands pursued a very tortuous course, resembling the outline of a twisting, undulating tube, cut in a longitudinal direction. The bands of spindle-cells were never of great breadth, rarely more than four or five spindles. The spindle-cells were not regularly or closely fitted, but were embedded like the round-cell elements, in a homogeneous basis substance. In the spindle-cell bands there were occasionally seen fine capillaries filled with red blood-corpuscles, which sometimes ran along for a considerable length; many other capillaries were seen cut transversely or obliquely, also in the spindle-cell tissue. Many areas of hemorrhage were visible. In many places a scanty fibrillar tissue, with various shaped nuclei, oval, angular, and spindle, was seen. This tissue was thrust in and filled the interstices between the areas of round-cells, circumscribed by the spindle-cell tissue. Thus in the section one passed from areas of round cells to the narrow bands of circumscribing spindles, and then into fibrillar tissue, with open meshes apparently without any inter-cellular basis substance. The whole picture resembled the cortical portion of the kidney, transformed by the presence of a new growth; the lumen of the convoluted tubes, greatly enlarged, were filled with a round-celled homogeneous basis substance tissue; the base-membrane of tubes transformed into spindle-cell bands, and finally areas of hyperplastic inter-tubular connective tissue, in which or along the basement membrane of the tubes

(spindle-cell bands), ran the inter-tubular capillaries. The left kidney weighed five ounces. On section it presented a normal aspect; the capsule separated easily, was not thickened, and the surface of the kidney remained smooth. The microscope showed no alteration of its tissues. The liver was large, smooth, blunt-edged, pale; under the microscope a very high degree of fatty infiltration was found. The other organs showed nothing especial to note. No secondary new formations were found.

Thursday evening, January 22, 1885. The President, Dr. Shakespeare, in the chair.

Two Cases of Nævus Pigmentosus.

Presented by G. E. de Schweinitz, M. D.

The first of these specimens is one removed from the face of a patient by Dr. John Ashhurst in the University Hospital. The man was aged about forty years, and the tumor took its origin in an ordinary mole, which under the stimulus either of external irritants or undue manipulation, grew into a slightly-raised mass, with flattened top and constricted base. After Prof. Ashhurst had excised the growth, I made a microscopical examination of it, with the following result: The uppermost portion of the tumor is densely pigmented, and the pigment is further seen to be of a brown or brownish-black color and contained in spindle or round cells, or to exist as free nuclei and granules. These pigmented spindle cells sometimes are arranged so as to form the boundaries of alveoli, which are in their turn filled with moderately-large unpigmented lymphoid cells. The base of the mass shows a small cell infiltrate, enlarged sebaceous glands, and a massing of the epithelium of the part, forming the appearances of squamous epithelioma. Below, the fat and subcutaneous tissue presents nothing abnormal. This growth my be classed, I think, as a hypertrophied mole having an epitheliomatous base.

The second specimen was removed by Dr. Agnew from the back of a man, also a patient in the University Hospital. This tumor developed from a mo.e, and grew as a papilla-shaped excrescence above the surrounding skin level. Microscopic examination of the mass showed it, like the former one, to be composed of a densely-pigmented tissue largely made up of spindle cells and free granules. Among the interstices of these were numerous blood channels filled with corpuscles. No malignant change at its base was noted, and the surrounding skin was normal. Ziegler, in his recent work on pathology, speaks of the not infrequent occurrence of melanotic and alveolar sarcoma in cellular warts and pigment spots; and certainly some parts of the specimens from the first case are strongly suggestive of a sarcomatous structure.

Urethral Polypi.

Presented by Dr. de Schweinitz.

These specimens of urethral polypi were removed from a patient with the following history: ———, aged about 30 years, contracted gonorrhœa, which was unusually stubborn and prolonged in its course. The disease had lasted about five months, when I first saw the patient. He was then suffering on account of some imprudence, from a moderately sharp attack of cystitis. Having recovered from this and from the acute symptoms of the exacerbation which had probably caused the cystitis, he returned to his former condition of a drop or two of purulent discharge in the morning, which no treatment seemed to relieve. Suspecting then that the long-standing discharge, the diminished calibre of the stream of urine, and the feeling of weight in the perineum might be due to a polypus, I explored the urethra with an improved endoscope, and found first two and later these three polypi, removed them, and had the satisfaction of seeing a cure follow this treatment. They were all situated within the first three inches of the urethra. I think no doubt these little tumors are papillomas, and belong to the more common varieties of new growths which are seen in the male urethra. A rough examination of them with a pocket lens reveals quite nicely their dendritic formation. Tumors of the urethra, in the male at least, are usually stated to be of rare occurrence; although as Wm. Belfield, of Chicago, has remarked, they may not be so rare as is usually supposed, as the urethra is seldom systematically examined upon the post-mortem table. Belfield himself, in a series of 70 autopsies, discovered two urethral tumors.

Slides from an Adeno-Fibroma of Lachrymal Gland,

presented by Dr. G. de Schweinitz.

These sections were made from a tumor of the lachrymal gland which was removed by Dr. Agnew. The growth occurred in a young man was of five years' duration, and painless, having been situated in the upper and outer part of the orbit. The eye was sightless from atrophy of the optic nerve. The tumor, which was about the size of an English walnut, was surrounded by a dense fibrous capsule; the main body of the growth was composed of fibrous tissue, through which the remains of the gland tissue are seen. The epithelium is, in places, in a state of proliferation, but apparently no formation has taken place which could be justly characterized as malignant. The tumor may be classed, I think, as a fibroma or adeno-fibroma of the lachrymal gland.

Specimens from Excision of the Astragalus for Caries, etc.,

presented by Dr. C. B. Nancrede.

Elmer ———, æt. 9½ years, had for some years suffered from characteristic symptoms of strumous disease of the astragalus, the details of which it is unnecessary to give. Early in November, 1884, he began to have chills, severe pain in the ankle-joint, which now became swollen, hectic, and profuse diarrhœa. Although I had never been able to detect dead bone by the probe, I felt convinced that an abscess, the result of carious bone, had ruptured into the previously only slightly diseased ankle-joint. I accordingly, under ether, examined the ankle-joint, which I found contained a considerable quantity of very offensive pus, which communicated with a cavity lined with carious bone, situated between the astragalus and os calcis. I excised the astragalus, and scraped out the carious external malleolus, as well as the roughened surfaces of the tibia. The boy has since done well.

Dr. M. Longstreth presented the following speci-

mens, the notes of which, with the discussion, not having been placed in the Recorder's hands as yet, will appear in print at a future time.

1. A Kidney Preserved as to Color and Texture by Ordinary Illuminating Gas. 2. Sarcoma of the Femur Removed by Amputation,

by Dr. J. H. Brinton.

Pyelonephritis and Chronic Parenchymatous Nephritis in the same Patient, Complicating Cystitis,

presented by Dr. J. Tyson.

E. D——, a prostitute, æt. 25, white, was first admitted to the Philadelphia Hospital September 10, 1883. She was at that time suffering from diarrhœa, and stated that she had previously passed blood—although appparently none was passed after admission. She had no symptoms which attracted attention to the urinary organs, and no examination of the urine was made. The history of the case at present attainable does not show whether or not she had had gonorrhœa. Her diarrhœa disappeared under treatment, but she regained strength slowly. She was discharged October 4, 1883, apparently in fair health, but was readmitted on October 25, 1883. She now presented œdema of the legs and face, and an examination of the urine made about this time disclosed the presence of pus. She complained of pain in the lumbar region and in the head, and was much debilitated. The treatment was directed to warding off a threatened uræmia. The dropsy disappeared, but her other symptoms progressively increased until death relieved her. She died with symptoms of uræmia.

Autopsy. — December 2, 1883. Nothing noteworthy in external appearance. Slight pleuritic adhesions, thoracic organs otherwise normal. Abdomen—peritoneum normal; liver normal; spleen not examined. Kidneys: left, typical large fatty organ; right, swollen to more than twice its normal size; when opened found to present a marked pyelonephritis with great distension of the pelvis, the calyces filled with pus—partly fluid and partly inspissated. Bladder was in a condition of chronic cystitis. Cause of death, pyelonephritis with large white kidney.

Dr. Tyson said that the chief interest attaching to the specimens lay in the association of these two very opposite conditions, apparent pyelonephritis, or suppurative interstitial nephritis, with chronic parenchymatous nephritis. The former condition is a well-recognized result of cystitis, the latter not. Dr. Tyson had never before met these conditions in association. Usually, as a result of a long-continued cystitis, however induced, we have a suppurative nephritis of one or both kidneys, but never, so far as he knew, suppurative nephritis. He thought the most reasonable explanation of the association was that of coincidence—that there had existed previously perhaps a parenchymatous nephritis; that upon this a cystitis had supervened, and upon this a pyelonephritis.

Dr. Tyson said that he would like to ask the members whether they had ever found association of these two varieties of diseased kidneys with cystitis. Dr. Formad thought that he had seen one such case, but there was no history. Dr. Osler said that the condition of this kidney is not infrequently met with in persons dying of intercurrent affections, and that he should not interpret the case as previous speakers had done. The kidney disease was probably of many years duration, the cystitis was secondary to it, and the other kidney affected with parenchymatous nephritis had become subsequently diseased. It was well known that the ordinary scrofulous kidney, with pus in the urine, etc., often lasts for many years, ending in general tuberculosis, or inspissation of the pus. He would like to ask how long pus had been observed in the urine, the state of the bladder, and whether there were other findings of tuberculosis in the various organs. [Owing to unavoidable circumstances, a portion of the discussion in which various explanations differing from Dr. Osler's were given, has to be omitted.—Recorder.]

Dr. Tyson replied that he was in the possession of no definite facts as to the duration of pus in the urine. The case had only been under observation for three months, and certainly pus had been detected two months before her death.

Editorial Department.

Periscope.

Malignant Disease of the Kidney—with Autopsy.

Dr. Edward T. Bruen presented the following case to the Philadelphia County Medical Society:

The specimen under consideration was removed from a man æt. 60, an inmate of the Philadelphia Hospital. The first symptom of his malady was noticed about six weeks before death. When admitted to my wards, he complained of passing pure blood from the penis, otherwise the urine was physiological. He never suffered the least pain; no dullness could be detected in the lumbar region or in the right flank. There was moderate cachexia, indicating the possibility of malignant disease, but little loss of flesh. The hæmaturia continued almost uninterruptedly until death, prior to which malignant disease was confidently anticipated. The right kidney was found to be enlarged, weighing twelve ounces—about one-half its bulk was filled with malignant new formation situated on the anterior portion of the organ. Microscopic examination by the microscopist of the hospital determined it to be an alveolar sarcoma. The tumor was rich in blood-channels, and a part of the bulk of the tumor was entirely made up of clotted blood in a semi-organized condition.

According to Zenker, Schroeder, and others, tumors of the kidney frequently do not arise from the epithelial tissues of that organ. The connec-

tive-tissue origin and character of these growths, and their richness in blood-vessels, would assign many so-called carcinomata of the kidney to the group of sarcomata.

The prominent symptom during life was hæmaturia yet in similar cases the condition of the urine is frequently absolutely negative. Ebstein (Ziemssen Cy.), states that hæmaturia occurred only twenty-four times in fifty cases. Again, authorities unite that long intervals may elapse between the periods of hemorrhage. We can easily understand this, since the cavities of the tumor which contain the blood may not communicate with the collecting tubules even in cases of extensive disease, or the secretion of urine may be vicariously assumed by the other kidney.

I have even met with cases of abscess of the kidney with only an intermittent discharge of pus. We may assume, however, that causeless and painless hemorrhage from the genito-urinary tract is a very suspicious symptom, indicating malignant disease.

Paroxysms of pain may attend the passage of clots of blood through the ureter, quite resembling those of renal calculus.

The rule ordinarily given in hæmaturia is, that blood escaping from the neck of the bladder or urethra precedes the stream of urine, and whenever blood has accumulated in the bladder in considerable quantity, blood-clots will be passed, but the urine first voided will be clear. In the case reported in this paper, pure blood was frequently passed almost unmixed with urine, so that the previously stated rules differentiating the cause of hæmaturia are of relative importance.

Paroxysmal hæmaturia can be recognized not only by its intermittent character, but by the abundance of the blood pigment, combined with the rarity of blood-corpuscles. The color of the urine in this affection is said to be due to hæmoglobin.

The hæmaturia of renal calculus can be recognized by exclusion only, unless renal colic with unilateral localized pain, or some characteristic sediment, be present; the total amount of urine may be diminished very decidedly, but not otherwise altered. Statements have been made by Heller, Moore, and others, that discharges of "floccule of cancer tissue" may be found in the urine in this class of cases. The altered epithelium of the renal pelvis and ureters has, doubtless, been mistaken for cancer cells, because although certain combinations of cellular material may excite suspicion in connection with other symptoms, nothing definite can be asserted from an examination of the urine. Recently, Dr. Julius Wolf (*Deut. Med. Wochenschrift*, September 25), has stated that iodide of potassium is much less readily eliminated by the kidney during Bright's disease than in health, and recommends the use of four or five grains daily for diagnostic purposes. Some observations by a student of the University of Pennsylvania, Mr. Gregory Guiteras, have confirmed the view—the iodine being absent in the urine in cases of disease of the kidney—but was present in abundance in the saliva. At first sight, the test might appear of service in malignant renal disease—but since malignant disease is usually a unilateral process, the test might indicate bilateral disease.

Primary malignant disease of the kidney is not always recognizable by percussion, as was illustrated by the present specimen. The bulk of the growth often projects anteriorly, since the lumbar tissues offer greater resistance. Careful percussion should be made over the lumbar and also the lateral regions; in the latter, percussion should include the space between the lower ribs and the crest of the ileum upward, or forward towards the navel. When tumors of the kidney are very large, and especially when the disease has involved adjacent viscera, the formation may become recognizable anteriorly by palpation, as well as percussion.

These growths are usually adherent to the walls of the abdomen or surrounding parts, and thus become immovable. They may be round and smooth, or nodular and lobulated, frequently giving rise to a sense of fluctuation, or elasticity, on palpation. They are, therefore, liable to be mistaken for hydatid tumors, and may be confounded with tumors of the liver. In case the growth is situated on the right side, the mistake is particularly possible, but the tumor will not rise or fall with the movements of the diaphragm, and the fingers of the hand can usually be introduced under the ribs on the right side.

These growths, when fluctuating, may indicate puncture with an aspirator as a deciding diagnostic measure, which has been practiced. In one recorded case a whitish-red mass of tissue was obtained, in which the microscope showed a delicate connective-tissue stroma, in which innumerable nuclei were imbedded, and the operation was followed by no bad results.

In renal tumors pain is a pressure symptom, and therefore may be present or absent in accordance with the size and situation of the growth. In malignant disease of the kidneys the cachexia usually noticed in such cases is a late symptom, and in cases of sarcomatous disease is never prominent. Malignant disease of the kidney is more frequent in the early and late periods of life, and is rare as a primary disease, but when present, the other kidney is usually unaffected, and it is very seldom accompanied by malignant disease of the lower urinary passages whereas malignant disease of the testicle, is often followed by renal carcinoma.

The Treatment of Acne Rosacea.

Dr. Tom Robinson thus writes in the *Brit. Med. Jour.*, January 17, 1885:

That alcohol does produce in some skins all the degrees of acne rosacea is undoubtedly true; but, to associate all cases of the disease with excessive drinking is unscientific and unfair. I know very many most rigidly careful people afflicted with the malady; and the unpopular name for these red spots being "grog-blossoms," in no way diminishes their suffering.

The treatment may be summed up in a few sentences. It is essential that all those who are afflicted with acne rosacea should abstain from all food which is difficult to digest, such as pork, veal, hashes, stews, and uncooked vegetables; and, as a general rule, from wine, beer, and spirits. The face should not be irritated by common soap, and care should be exercised as regards ex-

posure to the wind and sun. The meals should be slowly eaten at regular hours, and the fluid put into the stomach at the end of the meal.

In the first degree of the disease, it will only be necessary to prevent the development of the papules, by applying a lotion, made with bismuth and the glycerine of starch of the *Pharmacopœia*, diminishing the starch by three-fourths.

When the papules are developed, nothing answers so well as a lotion made with two grains of the bisulphuret of mercury in one ounce of almond-emulsion or glycerine of starch, used every night.

When the inflammation is acute, and suppuration is going on, we must, in the first instance, foment the face with hot water (placing a hot sponge over any troublesome spot is a simple and useful plan); and, when the acuteness of the inflammation has subsided, rub in an ointment made with twenty grains of the yellow oxide of mercury in one ounce of lard, and continue this treatment until the inflammatory process has stopped; after which, the bismuth and starch lotion answers well.

Internally, I always rely upon a mixture made with an alkaline carbonate; soda, I think, is best. If there be much inflammatory thickening, I add the solution of perchloride of mercury, or if there be any syphilitic tendency to grapple with, I add the Donovan's solution; if scrofula, cod-liver oil; but internal and external remedies are useless where organization of tissue has taken place. I have never seen an operation performed upon the advanced cases of acne rosacea.

Melanotic Sarcoma of the Rectum.

Before the Academy of Medicine, in Ireland, (*Lancet*, Jan'y 10, 1885).

Dr. Ball read a paper on a case of Melanotic Sarcoma of the rectum removed by operation. The patient, a fairly healthy-looking woman, aged sixty years, stated that eleven months before coming under observation she had noticed a pile which had been removed by operation, after which she remained free from rectal symptoms for four months. She then suffered from increased difficulty in evacuating the bowels. A slight discharge of bloody mucus appeared, and she became conscious of a hard tumor in the rectum, which partly protruded on stool. These symptoms continued to increase, and on admission defecation was difficult and painful, the pain being referred to a point immediately above the symphysis pubes. Upon examination the anus appeared normal, and the sphincter was not unduly relaxed. About an inch from the anal verge, on the anterior aspect of the rectum, two distinct and tolerably hard tumors could be felt, evidently implicating the mucous membrane: and by pressing the finger well up the superior limits of both could be readily made out, and below them a smaller mass was to be felt. The rest of the rectum appeared healthy, and no abnormal adhesion of the bowel to the other pelvic viscera was indicated. The mass was extirpated by the usual method on November 1st, a free posterior incision being made to give room. Corrosive sublimate solution, 1 to 2000, was the antiseptic used, and the wound was left open. The after-progress of the case was afebrile and satisfactory. The bowels moved for the first time on the fourth day, and the patient had complete control over the evacuations. The piece removed measured about three inches in breadth and two and a half inches in length, and consisted of the anterior two-thirds of the circumference of the bowel. There were two principal growths, separated by about half an inch of mucous membrane and equidistant from the anus. The larger had a depression in the centre, and was of a whitish color; the other was black on the surface and spherical in shape. Below the two principal tumors a smaller nodule, also black in color, was to be seen. A section carried through the two larger growths showed that the lighter colored one was of the same hue throughout, except where a small blood-clot existed in the interior; but the second was of a sooty black color, as seen on section. The shape and arrangement of cells were similar in both tumors, being those of a typical sarcoma. The cells were round, ovoid, or even spindle-shaped, with large nuclei, and in some portions resembled a form of alveolar sarcoma. In the larger one there was a very slight amount of pigment, but in the smaller pigmentation was extreme, some of the cells appearing as large masses of blackish material, while others had dark granular material, more sparsely scattered in their substance. In the portion of mucous membrane between the two growths the glands were much atrophied and surrounded with lymphoid tissue.

Nephrectomy in Infants and Children.

The *Med. News*, January 24, 1885, says editorially that at a recent meeting of the Clinical Society of London, the proceedings of which are recorded in the *Brit. Med. Jour.* for November 1, 1884, Mr. Godlee read a paper on a case of abdominal nephrectomy for sarcoma in a boy twenty-two months of age. The removal was accomplished without any difficulty; the cure was uninterrupted by a single bad symptom; and the child was discharged in six days. In six months, however, recurrence took place in the right iliac fossa; the tumor rapidly increased in size, passing down into the scrotum; and death ensued soon after.

Mr. Godlee, in his comments on the case, mentioned eight other examples of extirpation of the kidney for morbid growths in subjects of tender years. Including his own, the nine cases show that five died of the immediate results of the operation, three recovered, bnt died subsequently of a recurrence, while one was well when last heard of. Despite these unfavorable results, and in view of the hopeless condition of these patients if left alone, he argued that attempts should be made to remove neoplasms at an early stage; but, at the same time, plead against interference when the growths had attained a large volume.

Unless we greatly mistake, the weight of opinion is against nephrectomy for tumors in children, and we believe that the majority of surgeons will endorse, so far, at any rate, as sarcoma in early life is concerned, the view expressed by Mr. Henry Morris, in the fifth volume of the *International Encyclopœdia of Surgery*, which has just been issued from the press. He says: "It is probable that

future experience will exclude from the category of cases for which nephrectomy, by any method, should be done, tubercular disease, and renal sarcoma in children, as well as cancer at any period of life."

We have before us the notes of eleven extirpations of the kidney for neoplasms in children, ten being for sarcoma and one for adenoma, an analysis of which shows that the operation has thus far been of the most disappointing nature. It may be mentioned that the surgeons were Hueter, Jessop, Kocher, Czerny, Hicquet, Rawdon, Réczey, Little, Ollier, Sir Spencer Wells, and Godlee. Of the entire number, eight perished from the immediate results of the operation, thereby showing a mortality of 72.72 per cent., and three recovered, namely, the cases of Jessop, Hicquet, and Godlee. Ten of the operations were by the ventral incision, of which eight died; and one was by the lumbar incision, which recovered. Of the three recoveries, the patient of Hicquet remained well at the expiration of three months, the date of the last report; while the disease recurred, respectively, in six and nine months in the cases of Jessop and Godlee.

It will thus be seen that the immediate mortality was 72.72 per cent., and that the disease returned in 66.66 per cent. of the recoveries. In addition to this gloomy record, we have, however, to state that the operation does not prolong life, since the average duration of life was fifty days, as against an average life of between seven and eight months in the same class of subjects, when the disease is allowed to pursue its natural course.

While we are of the opinion that nephrectomy is unjustifiable in children the subjects of renal neoplasms, further experience may show that Mr. Godlee is right in asserting that interference is proper in the early stage of the affection, particularly as Kühn states that secondary growths are found in only 28 per cent. of sarcomata of persons of tender years. But when we consider that these cases rarely come under the observation of the surgeon until the tumor has attained a considerable volume, it can scarcely be expected that the future will show better results than those now recorded.

Apparent Recovery from Locomotor Ataxia.

Dr. J. L. Crawcour reports the following case in the *New Orleans Med. and Surg. Jour.*, Dec., 1884.

Mr. B., aged 45, came to see me September 11, 1883. Until about a year ago, was in moderately good health, when he first noticed some difficulty in going up stairs. He then had darting pains in the legs, which gradually became more intense. By degrees he became weaker and more unsteady.

At present, he looks pale and is somewhat thinner than usual. His walking powers are very weak, and he cannot move about without assistance. In order to go up stairs, he has to crawl on his hands and knees, and to come down he has to go backwards in a similar way, assisting himself by his hands.

He has had several bad falls. In walking, he knocks his legs about; his feet feel as if a thick piece of felt was between him and the floor, and the least fatigue rapidly exhausts him.

Any mental effort and reading produces a sense of confusion in the head, and he has occasional attacks of vertigo. The patellar tendon reflex is abolished. Asked to walk or stand with his eyes shut, he would have fallen had he not been supported.

There is some diminution of tactile sensibility in his legs, as tested by the æsthesiometer.

Passes urine more freely than natural. No albumen or sugar. Sexual desire and power much diminished. Examined by the galvanic and Faradic currents, the reactions were normal, showing that the grey matter of the cord was not involved.

The diagnosis was chronic inflammation of the posterior root-zones of the cord producing sclerosis.

The treatment which was commenced on the 11th of September, consisted in the application of the galvanic current down the spine. The anode at the second cervical vertebra, the cathode at the last lumbar. The current was derived from 35 Lechlanché elements equaling 47 gravity cells and was passed through a water rheostat, until it gave a constant deflection of the needle of a large galvanometer of 40°, including the external resistance of the body. The current (stabile) was applied for ten minutes daily.

The medicinal treatment consisted in the exhibition of the nitrate of silver commencing with the one-sixth of a grain three times daily gradually increased to one-half grain. This was interrupted every three weeks for a week, in order to avoid staining the skin. The electric brush, with a strong secondary Faradic current, was applied a few times down the spine, but the pain was so intense it had to be discontinued, and I substituted the revulsive action of the thermo-cautery, applied twice a week on the side of each vertebra, as the application was made very rapidly, the pain was very slight.

At the end of three weeks of this treatment, he was able to walk with the help of a stick; at the end of six weeks, he was able to go up and down stairs, and at the end of ten weeks, he went home almost well. I advised him to procure a McIntosh galvanic battery and use it daily, and also the nitrate of silver for two months longer.

He is now perfectly well and without a trace of disease.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——In a reprint before us discussing the operation of tracheotomy, Dr. Joseph E. Winters maintains that this surgical procedure, if properly performed, involves little danger to life and for many reasons should be resorted to much more frequently than is now the custom.

——A successful case of relief of a distended frontal sinus by interior local treatment is reported by Dr. C. J. Kipp, of Newark, N. J. In a paper from the Transactions of the American

Ophthalmological Society, he makes the important observation: "Attempts to empty the sinus through its obstructed or closed passage into the nose by digital pressure on the swelling should be made from time to time, and after the sinus has been once emptied it should be evacuated at short intervals. If, after a fair trial of this treatment, the distension continues, the old method of treatment may be resorted to."

——The address in medicine, by Dr. W. H. Daly, before the Pennsylvania State Medical Society, has been issued in neat pamphlet form.

——The National Temperance Society of New York, has republished Dr. B. W. Richardson's inaugural address, entitled "The Medical Profession and Alcohol." As is well known, Dr. Richardson is a teetotaler, and strongly urges the profession to join him and his party in what he calls "the supreme effort which is now being made, with every prospect and certainty of ultimate success, to rid the world of the slavery of superstition, folly, sin, sorrow, madness, and death that has for ages past been imposed upon the world by the use of alcoholic drinks."

BOOK NOTICES.

The Science and Art of Surgery. By John Eric Erichsen, F. R. S., LL. D., etc., eighth edition. Revised and edited by Marcus Beck, M. S., etc., vol. II, pp. 1205, Philadelphia, Lea Bros. & Co., 1885.

Not long ago we announced the appearance of the first volume of this highly esteemed work. The present issue completes it, and presents to the student a most valuable treatise, and to even the best-read surgeon a mine of information in which he will be sure to discover something which he will be glad to learn. In these compact volumes all the acquisitions of modern surgery are carefully recorded, and appraised with the skill of a master. Nearly a thousand illustrations enrich the pages, and add much to the interest of the text. An excellent index completes the second volume.

A Handbook of Pathological Anatomy and Histology, with an introductory section on post-mortem examinations and the methods of preserving and examining diseased tissues. By Francis Delafield, M. D., etc., and T. M. Prudden, M. D., etc., 1885. Cloth, 8vo., pp. 575. Wm. Wood & Co., New York, 1885.

This is the second edition of Dr. Delafield's work, but the scope of it has been so much extended that it may be considered as a new production. In its present form it contains minute instruction in the methods of making post-mortem examinations, of preserving diseased tissues, of preparing them for examination, and of cultivating and examining bacteria; also a description of the pathology of the processes of inflammation and degeneration of structure, the histology of the various forms of tumors, and of the lesions of the different parts of the body, of general diseases, of violent deaths, and finally of the appearances in cases of poisoning.

We need scarcely say that these topics are treated with great thoroughness, and the facts set forth in excellent language. The wide experience of the authors makes itself manifest on every page. The statements made are the result of personal observation, and are set forth with that clearness which direct study alone can give. The illustrations are numerous, and all of them are original, and drawn from actual specimens.

Our Bodies: Or How We Live. An Elementary Text-book of Physiology and Hygiene. By Albert F. Blaisdell, M. D. Pp. 285. Price sixty cents. Lee & Shepard, Boston.

The author of this school text-book describes with brevity and clearness the anatomy, physiology, and hygiene of the human frame; touches on dietetics and exercise; gives instructions for the care of the sick; teaches various practical experiments of a simple character, and adds references to a number of authorities for the benefit of those who might feel a desire to study the subject more at length. It is one of the best school treatises on this branch which has come to our notice.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for 1884. Pp. 308. Washington, D. C.

The medical reader will find a great deal of instruction in this volume. It is by no means confined to the dry statistics of the service. Nearly a third of the pages are taken up with the descriptions of selected cases from the hospital practice of the surgeons of the corps, generally related with much minuteness and care. There are also special detailed reports on the yellow fever and a selection of reports from the United States Consuls on the cholera epidemics of last year, which it is quite possible may be appropriate reading for the coming summer. Other timely questions, as that of quarantine, the importation of rags, the hygiene of the merchant marine, the care of seamen on shore, and the like, are also discussed in an instructive manner.

THE

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MAN AS A COOKING ANIMAL.

When Dr. T. Lauder Brunton says anything, he generally says something good. In the course of his lectures on "Disorders of Digestion," published in the English journals, he very truly says that "man has been defined as a cooking animal," and holds that while some of the lowest races are unacquainted with methods of cooking, yet on the whole the definition is true, for one of the most marked distinctions between man and the lower animals is that while the former cooks his food, the latter eat theirs raw.

That man is wise to be a "cooking animal," no one who hesitates to reflect will deny. That well-cooked food is much more easily digested than that which is indifferently prepared is a truism, though admitting of a relative definition and application. Of course, the laboring man can digest the coarsest kind of food, and derive from it nourishment for his muscles, that enable him to do physical work that, being directed by others and requiring on his part simply muscular effort, must be placed on a plane but little above the labor that is performed by the lower animals, who belong to the *non-cooking* class.

But let the man who combines mental and physical labor—he who constitutes the highest type of manhood—endeavor to nourish his muscles and his brain on similar food similarly prepared to that of the day-laborer, and we warrant you that in a very short time his digestion will suffer, and the results of his labors will be of an inferior nature.

We do not mean that he who wishes to work well should live upon the richest and most highly seasoned food, that he should be an epicure, as the word is commonly understood; though it seems to have been an epicurean dinner given by one of the City Companies of London that caused Dr. Brunton's enthusiasm on the subject of good cooking.

It may be that an English epicurean dinner is a much simpler and more substantial and less injurious affair than those to which we are accustomed in this country; if so, then we have no fault to find with it.

However, the fact remains, that good cooking is one of the most important and at the same time one of the most neglected aids to good digestion among the people of our country.

That what might be called "fancy" cooking is appreciated by many, is evidenced by the exorbitant wages commanded by the cooks of our best restaurants, hotels, and clubs, and the avidity with which all who are able, avail themselves of the products of these autocrats of the kitchen; but that *good* plain cooking is comparatively rare among the mass of our housekeeping population is an undoubted truism. We all know that pleasant impressions made upon our senses is the great secret of healthy life, the great lever that causes harmonious performance of all our vital functions; do we know not also that the impression of a well cooked dinner is a most potent aid to digestion, and do we stop to realize how grievously this aid to health is neglected.

Commenting on the advantages of a variety of articles of food, Dr. Brunton says:

"The common order of courses in a plain dinner is soup, fish, joint, pudding, bread and cheese, and dessert. The reason why soup comes first, has been admirably shown by Schiff in his experiments on digestion. This physiologist found that the stomach of an animal which some time before had digested a full meal, had very little power to digest albumen introduced directly into it; and a similar fact was ascertained in regard to an extract made from the stomach itself, this extract hardly acting on albumen at all. The stomach seemed to be exhausted by the effort of digesting a full meal several hours before, and to be incapable of producing pepsine. But if certain substances were introduced first into the stomach, the power to digest albumen was enormously increased. To these substances Schiff gave the name of 'peptogens,' and the most powerful of them he found to be dextrin, and soup made from meat.

"If the human stomach resembles the stomachs of animals in this point as it does in others, then we may say that usually the power of the stomach to digest such substances as hard-boiled eggs or boiled meat, when these are taken alone, will be very slight. But if the meal be begun with a plate of soup and a piece of bread, the bread partly converted into dextrin in the mouth, and the extractive matters of meat contained in the soup, on reaching the stomach, will be absorbed, and will supply to the gastric follicles the power to secrete an abundance of pepsine. In this country, where our butcher's meat is tender and juicy, we not unfrequently find that people in the middle of the day will take a beef-steak or a mutton-chop without soup. In this case, the savory soluble substances are quickly extracted from the meat in the stomach itself, and, being absorbed, supply the necessary secreting power to the gastric glands. But in other countries, where the animals slaughtered for food are often old and tough oxen, which have been employed for years in agricultural service, the meat, being less savory and juicy, will not yield peptogenic matters so readily to the stomach. Consequently, the Frenchman generally boils his butcher's meat thoroughly, and adds pieces of bread to the soup with which he begins his meal, so that the stomach can absorb sufficient peptogenic substance before the hard and tasteless boiled beef is swallowed.

Next to the soup, as I have said, usually comes fish, which is digested more easily than butcher-meat. I have already mentioned, more than once, that the rapidity with which anything dissolves depends very much on the fineness with which it is divided. Now, this is quite true of the different kinds of meat. Beef is acknowledged to be less digestible than mutton, and mutton less digestible than fish. The breast of a chicken is also reckoned very digestible. If we compare these different kinds of flesh, we will find that in beef the fibres are longer and harder than those of mutton, and those of mutton longer and harder than those of the breast of a fowl. The muscle-fibres in fish are arranged in flaky masses, and are not only very short, but are very readily separated from one another. We see, then, that the different digestibility of these different kinds of meat corresponds exactly with the readiness with which the muscle-fibres can be broken up mechanically. That it is the physical conformation of the muscle-fibres, rather than anything peculiar to the animal from which they are derived, is shown, I think, by the fact that, although the breast of fowls is universally acknowledged to be readily digestible, the legs, in which the muscular fibres are long and hard, are by no means specially adapted for weak digestions. With the meat, come vegetables, which are not only useful as supplying inorganic salts, but probably play a considerable part in aiding the recomposition of peptones into albuminous material of the tissues, after their absorption.

After the meal come the bread, cheese, and dessert. The bread will, no doubt, supply additional dextrin, and the cheese additional albuminoids; but, if we direct our attention only to the stomach, and to the chemical changes which are going on in it, it is not quite easy to see why bread, cheese, and dessert should be taken at the end of dinner. If we turn our attention, however, to the circulation and the nervous system, and remember the effect which I have already mentioned as produced upon them by the mastication and deglutition of savory food, we can at once see a good reason for the common manner of terminating a dinner. In order to supply abundant gastric juice for the digestion of the food introduced into it, the stomach requires an abundant supply of blood, and the nervous system must be kept active in order to respond to the calls made upon it. The savory cheese, swallowed in small morsels, and the sweet fruits, which strongly stimulate the nerves of taste, or nuts, which require considerable mastication, cause an abundant flow of blood to the nerve-centres; while the frequent movements of swallowing stimulate the heart, and increase the rapidity of the general circulation."

ABOUT GRAY HAIR.

The heroine of a popular play is made to exclaim that she never considers a man old until he is fat and bald.

She was quite right in omitting gray hair as a sign of age. Though it is generally esteemed so, there are too many exceptions on both sides to allow it as an infallible sign.

Many persons begin to show gray hairs while they are yet in their twenties, aad some while in their teens. This does not by any means argue a premature decay of the constitution. It is a purely local phenomenon, and may co-exist with unusual bodily vigor. The celebrated author and traveler George Borrow turned quite gray before he was thirty, but was an extraordinary swimmer and athlete at sixty-five.

Many feeble persons, and others who have suffered extremely both mentally and physically do not blanch a hair until past middle life; while others, without assignable cause, lose their capillary coloring matter rapidly when about forty years of age.

Race has a marked influence. The traveler, Dr. Orbigny, says that in the many years he spent in South America he never saw a bald Indian, and scarcely ever a gray-haired one. The negroes turn more slowly than the whites. Yet we know a negress of pure blood, about thirty-five years old, who is quite gray.

In this country, sex appears to make little difference. Men and women grow gray about the same period of life.

In men the hair and beard rarely change equally. The one is usually darker than the other for several years; but there seems no general rule as to which whitens first.

The spot where grayness begins differs with the individual. The philosopher, Schopenhauer, began to turn gray on the temples, and complacently framed a theory that this is an indication of vigorous mental activity.

The correlation of gray hair, as well as its causes, deserve more attentive study than they have received. Such a change is undoubtedly indicative of some deep-seated physiological process, but what this is we can only ascertain by a much wider series of observations than have yet been submitted to scientific analysis.

NOTES AND COMMENTS.

The Relations Between the Teeth and the Womb.

Dr. S. W. Caldwell, of Trenton, Tenn., publishes the following peculiar case in the *Mississippi Valley Medical Munthly*, January 10, 1885:

Recently, while spending the night in the sick-room, I had as company a married daughter of my patient, an intelligent lady, aged about thirty-two years, who related the following—to me—most singular phenomena. Said she: "I am the mother of five living children, one dead. My terms of gestation are unmarked by anything unusual. My labors last about eight hours on an average. My last came as usual with me—pain beginning in the back, passing down to the lower part of my bowels. When I had been in labor about an hour, the pain suddenly ceased in my back and womb, but set up in a tooth that had been aching several times during the past nine months. The pain was paroxysmal, coming and

going just as it did in the womb. The pain was in my tooth when my physician came, and he wanted to pull it, but it being one of but few remaining molars, I said to him that the cavity in it was small, and that I wanted to have it filled—couldn't he put something in it and stop the aching? He put cotton saturated with chloroform in the cavity. The pain left the tooth to appear in the back and womb; but the effect soon passed off; the pain in a few minutes returned to the tooth, to be again and again relieved by the chloroform; the doctor said no progress was being made in the labor, and that in his opinion none would be till that tooth was removed."

"Did he say he had ever seen or heard of such a case before?"

"No, sir. Twelve hours had now passed; my former labors had none gone over eight—generally six hours terminated them. I had become, I thought, exhausted, and asked the doctor to pull my tooth, which he did, and my baby was born in an hour."

The attending physician in the above case, and with whom I was personally well acquainted, died not long after, so that I cannot have his history of it. My knowledge of the lady, though, justifies me in giving full credence to her statement.

Tabes and Progressive Muscular Atrophy.

But few cases have thus far been reported, where locomotor ataxia was associated with progressive muscular atrophy. Eulenburg describes a case of this kind in the *Deutsche Med. Zeit.*, Dec. 22, 1885. In his case also the sclerosis of the posterior columns preceded the outbreak of the atrophy. After the patient had suffered for ten years from most symptoms of tabes as, sensation of a constricting band around the lower part of the chest, lancinating pains, gradually increasing uncertainty in walking and standing, severe gastralgic attacks recurring every 2–4 weeks with persevering vomiting and a peculiar left-sided headache, disturbances of the bladder, myosis and immobility of the pupils, and about six months ago the phenomena of progressive muscular atrophy made their appearance. First some muscles of the thumb of the right side, and then those of the left were attacked, afterwards the other muscles of the thumbs, and then those of the small fingers, the interossei and the extensors of the hands. Thus far the atrophy is limited to the muscles of the forearm; the muscles of the back evince but a peculiar weakness, and the atrophic arm-muscles show a decided diminution of electro-muscular contractility, some of them not at all responding to the faradic current, while the galvanic irritability is either diminished, increased or otherwise affected with the general formula of ACC>KCC (anode, closure, contraction stronger than anode CC, the opposite of the normal reaction).

From the post-mortem examinations of other cases, it is to be presumed that we have in these rare cases a complication of the posterior sclerosis with the characteristic lesions of neurotic progressive muscular atrophy, *i. e.*, with degeneration and atrophy of the large (motoric) ganglion cells of the anterior cornua, especially of the cervical spine. Charcot is of the opinion that the disease spreads to the anterior cornua by means of the inner fibres of the root-fibre-path as first indicated by Köllicker, for these fibres pass directly to the exterior group of cells. Eulenburg, however, believes that in some cases this connection cannot be proven, when the complication must be considered an accidental complication, probably originated by the same poison that gives rise so frequently, if not always, to locomotor ataxia of syphilis.

Diagnostic Errors and Practical Hints.

The following little article which Dr. A. B. Tadlock publishes in the *Nashville Journal of Medicine and Surgery* for February, 1885, is well worthy of note. He says:

"Other things being equal, we should say that a correct diagnostic rule would always lead to correct diagnostic conclusions; but the crucial tests of experience, even in this day of scientific perfection and wisdom, will occasionally teach us that *rules*, like facts and theories, may be incorrect, though recognized, practiced and taught for ages. In an interesting article by J. W. Long, M. D., he speaks of an arm presentation in a protracted case of labor in which he was consulting physician, as follows: 'Upon making a digital examination I found the little fellow's protruding hand fit my left hand, exactly as though we were shaking hands—thumb to thumb, and palm to palm.' Remembering the rule laid down in the books, the writer adds: 'The diagnosis flashed across my mind in an instant—the child was lying across the pelvis, its head to the right, its back to the front.' (Page 551, Dec. No.) Not many years ago a similar case, under very similar circumstances, occurred in my practice, and while 'the indications were plain enough,' as he says, still the mode of turning according to the rule was not as satisfactory, for the reason that the head was directly in the opposite flank from that

in which the 'shaking hands rule' required it to be. The child's hand was turned and lay behind its back. So the exception to the accepted *rule* was verified. This can be easily demonstrated by any one shaking hands with some person whose back is turned towards him.

"On page 537 (same No.) we find the history of an interesting exploit after a misplaced hairpin. In my first years of practice I found the same sort of a pin in a like predicament, and equally unsatisfactory to its locator, and puzzling to the prospective dislocator. Removal was effected, however, by passing a perforated gum catheter over one end of the pin when exposed, and then by pushing the catheter it was forced around the bend of the pin and back over the opposite end, and thus entirely encased, extraction was accomplished easily by the removal of the catheter."

Rectal Alimentation.

This subject is so interesting and important that we cheerfully reproduce the following case which Dr. Taylor reports in the *Cincinnati Lancet and Clinic*, February 7, 1885:

A married woman, twenty-five years of age, had had purpura hemorrhagica; she recovered from this sufficiently to take a trip, and seemed to be well when she came home. Suddenly, she was affected with a most excessive uterine hemorrhage, which came on at the time of her normal menstruation. The speaker was summoned and found the woman very pale and much prostrated, with great coldness of the surface and of the extremities particularly; a pulse of 140, weak and thready; and vomiting of the most aggravated character. The vomiting was constant, and everything swallowed was instantly rejected by the stomach. Three teaspoonfuls of ice-water were vomited as soon as taken. No nourishment whatever could be given to the patient in the ordinary way. The speaker, therefore, ordered an injection every three hours of four ounces of milk with ten drops of denarcotized opium; this was continued for ten days, and nothing else given, though attempts were several times made to administer nourishment by the mouth, but this was invariably followed by severe vomiting. However, the serious symptoms gradually disappeared; it finally became possible to give the patient food and medicine by the mouth; she became stronger, and had a better color. During the whole time the woman was very thirsty, and would beg for water, but this was instantly rejected.

The bowels moved once in a couple of days, the passages being soft; the urine was very little in amount. There was no hysterical element in the case, though the woman was nervous.

Should a Person Affected with Psoriasis Marry?

This interesting question was brought before the New York Dermatological Society (Dec. 23, 1884,) by Dr. Piffard, who said that he had a patient suffering from a moderate psoriasis, who asked him his opinion as to the propriety of marrying. Dr. Piffard said that he would like to have an expression of opinion from the members of the Society, on the subject.

Dr. Taylor said that he had seen many cases in which psoriatic patients had perfectly healthy children. In giving an opinion, he would be influenced by the length of time the eruption had existed, as well as its activity. If the question were propounded to him, he would say that if the patient suffered continuously from the disease, or if the attacks were severe, he would advise the patient not to get married; but if the attacks were ephemeral, he did not see any objection to marriage. In his mind there was no question as to the heredity of psoriasis, but it was generally in inveterate cases of long standing.

Dr. Sherwell could see no reason why a patient thus affected should not get married. He looked upon psoriatic patients as among the strongest persons. He had seen only one unhealthy patient, among several hundred, and he had fibroid phthisis. In fact, he believed that the occurrence of psoriasis was an indication of health.

Dr. Robinson would certainly advise psoriatic patients not to get married, unless there was some other good reason aside from the question of health. He said that psoriatic persons were often unhealthy, and cited a case of a patient with psoriasis in whose immediate family two persons died of phthisis and another had scrofuloderma.

The Effect of the Ingestion of Large Quantities of Grape Sugar on the Urine of Children.

Concerning this interesting physiological question, Dr. John M. Keating tells us in *The Therapeutic Gazette* (January 15, 1884,) that his attention has so frequently been called to the fact that sugar, to a greater or less amount, is found at times in the urine of persons who are supposed to be in excellent health, and the question has so often arisen whether or not diet has anything to do with this, that he determined to satisfy himself by a series of investigations as to the correct interpretation of this condition. He has had under observation at various times numbers of

infants whose diet was composed of milk and *Mellin's food*. Some of them took as much as an ounce and a half to two ounces of Mellin's food during the twenty-four hours. This consists, as is well known, of malted grain, a large part of the starch of which has been transformed into grape sugar. He has failed to detect a single trace of sugar in the urine of any case of this kind examined so far; and as all these children are in excellent health, he is led to conclude that the appearance of sugar in the urine of adults, whether it is or is not traceable to the diet of the individual, is an evidence of, at least, functional derangement which demands careful investigation. From these experiments he believes that if we can draw an analogy between a healthy infant and an adult—and he sees no reason why we should not—a sugar diet, unless in very great excess, in a healthy individual ought not to produce saccharine urine; if such is found, disorder or disease is probable.

Lepra and Tubercle-Bacilli.

One author after another is added to the list of those who are convinced that the tubercle-bacilli really are the pathogenic cause of tuberculosis. But the latest investigations have demonstrated the great difficulty which the observer has to overcome in the recognition of these bacteria. The lepra-bacilli are so very similar, not only in their appearance and in their reaction to coloring matter, but also in their behavior under pure-culture, that in cases of doubt the diagnosis becomes exceedingly hazardous.

We have to be grateful to Dr. V. Guttmann, who at the last meeting of the Berlin Medical Society communicated a method by which the distinction of the two species of schizomycetes becomes a much easier one. Guttmann says that they may be recognized without difficulty in dry preparations on the slide, but not by their appearance, but by their position. The tubercle-bacilli of the sputum are never seen in cells, but always perfectly free, and the same holds good of the tubercle bacilli from caverns, as they anyhow contain but the detritus of cells. But the dry preparations on the slide, of lepra-bacilli, though partly also free, are met with in immense numbers, mainly in cells, which on the slightest pressure may be easily discerned in the lepra-fluid.

With the usual method of coloring by anilin tints (red and blue), the lepra-bacteria are at once recognized, for they appear as red rods in blue cells, and the latter are so numerous as they never show themselves in case of tubercle-bacilli.

Sleeplessness.

A foreign exchange very truly says that sleeplessness is really wakefulness, and that before we resort to stupefying drugs to remedy this condition, we should inquire into the cause and remove it if possible. The cases of Napoleon and other busy men, who develop the power of self-induced sleep to such an extent as to be able to rest whenever and wherever they please, for longer or shorter intervals, as the conditions admitted, are quoted. We know that excessive mental work, worry, the abuse of alcoholic beverages or anything that will tend to keep too much blood in the brain, will ultimately produce a chronic engorgement of that organ that will render physiological sleep almost an impossibility. We have known insomnia, due to excessive alcoholic indulgence, to be very effectually relieved (and permanently so) by the application of dry cups to the nape of the neck. To discover the cause, will, of course, in many cases, take time, and involve a scientific testing of the relative excitabilities of the sense-organs, central or radial and peripheral. The discovery of the cause, however, affords ample recompense for the trouble of searching for it. With the sphygmograph and a few test appliances, such as Galton's whistle, an optometer, and other instruments, the recognition of the form and cause of sleeplessness can be made in a brief space, and then, and then *only* we protest, it can be scientifically—i. e., physiologically—treated.

Rheumatic Glossitis.

From a foreign exchange we learn that an alleged case of rheumatic glossitis is recorded by Dr. Carvallo in *La Cronica Médica*. The patient was a man aged forty, who one day found that his tongue began to enlarge and that articulation was difficult. The swelling increased so much that the tongue was no longer confined in the limits of the mouth. There was much difficulty in breathing; the lips were blue; the pulse was small; salivation was incessant; deglutition was painful; speech was impossible, and at times attacks of suffocation threatened dissolution. Leeches were applied to the angles of the lower jaw. Dr. Carvallo remembered to have read in M. Jaccoud's "Traité de Pathologie Interne," that Lawrence had written of the occurrence of glossitis as a consequence of rheumatism. The patient admitted that he had had rheumatism, and that he even then had rheumatic pains about the shoulders. An infusion of jaborandi was prescribed, and afterwards a draught containing sali-

cylate of soda. The next day the tongue had diminished greatly in size, and had returned to the buccal cavity. The suggestion that such cases of swelling of the tongue may depend on a rheumatic agency is perhaps valuable; the proof that the case mentioned was of rheumatic nature cannot be said to have been given.

Infants' Food.

This much-discussed question has been again discussed before the Obstetrical Society of Cincinnati (*Obstetric Gazette*, January, 1885), by Dr. J. L. Cleveland, who, in concluding his paper, remarked that while the members of the society might differ in the minutiæ of infant diet, in the main they were all agreed. The mother's milk contains all the ingredients necessary to the maintenance of the child, and so does the cow's milk.

There is too much caseine in the latter, which when coagulated forms a hard, indigestible mass. This may in a great measure be avoided by adding water, oatmeal, barley, etc.

One great difficulty in the management of the diet of infants is the lack of judgment on the part of the nurse. Every time the child cries it is supposed to want food, when often it cries because it has had too much food.

We can not be very positive in our recommendations of artificial food. What may answer well with one child may be found to totally disagree with another. He thought it very important to impress on the mind of the nurse the necessity of offering the child water at certain intervals. It helped to prevent the formation of hard masses of caseine, and the digestive juices acted better in its presence, when given in moderate quantities.

Cocaine in the Removal of Foreign Bodies from the Eye.

Still more about cocaine. In the *London Med. Times*, January 31, 1885, Dr. A. MacGreggor reports the following case:

A farm servant, while engaged working at a threshing machine, was struck on the right eye by part of a husk of corn with such force that it was firmly embedded in the substance of the cornea. He consulted me two months afterwards, and at that time, near the inner edge of the cornea, there was a large ulcer, the floor of which was covered with greyish lymph, but he could see no foreign body. The man, however, said he was certain the offending particle was still there. He applied a 10 per cent. solution of hydrochlorate of cocaine; in ten minutes the cornea was insensitive; he gently scraped the lymph away, and, much to the delight of the patient, removed a thin piece of husk more than an eighth of an inch long and a sixteenth broad.

Considering the length of time the foreign body was allowed to remain in the cornea, the signs of irritation were wonderfully slight, due, no doubt, to the atropine ordered by the gentleman who saw the patient soon after he received the injury.

Rheumatic Pains.

Constantin Paul recommends in the *Union Méd.* in cases of rheumatic pains as in lumbago, torticollis, pleurodynia, intercostal neuralgia, sciatica, etc., the covering of the painful parts with a compress saturated with oil of turpentine, but considers it important to place some impermeable substance, as gum cloth, oil silk or wax paper, over the compress, for in cases where such a protective had been omitted, the effect was not so favorable. It is probable that there is some virtue in these remedies, for crude kerosene oil, so nearly related to turpentine, has frequently been employed in this country for the same purpose, and not seldom stopped the pain. If no impermeable substance be laid over the compress, the rapid evaporation of the turpentine probably diminishes the effect of the drug, which can act only as a counter-irritant, and its irritating action must, therefore, be the greater, the more concentrated the remedy.

Extirpation of the Kidney.

At the December meeting of the Paris Academy of Medicine, Dr. Le Dentu presented a patient in whom he had extirpated three years ago the left kidney to remove a urinary fistula which, after an operation for a hydronephrosis, had remained unclosed in the iliac fossa. After the extirpation of the organ, the abnormal flow of urine at once ceased, but another fistula remained, which discharged pus. To establish its cure, Le Dentu left a drainage tube in the channel. When the discharge of pus had dwindled to a minimum, the tube was removed, and two days later the fistula closed.

The patient passes since the operation about three pints and two ounces of urine daily, and the urine itself is normal and free from morbid contents. It is not possible to demonstrate either by palpation or in any other way an enlargement of the remaining kidney.

The action of the heart is normal, and evinces not the least disturbance.

News and Miscellany.

Notes on Medico-Legal Cases.

BY HENRY A. RILEY, ESQ., NEW YORK.

In a Wisconsin court there was recently an interesting discussion in reference to the right of an insane criminal to a regular trial of the issue by a jury at the same time that the criminal charge was tried, and it was held that there was no such right. The person was under indictment and about to be tried when the district attorney informed the court that there was a probability that that the accused was insane and unable to care for herself, and the court thereupon ordered an investigation. A jury was impanneled to try the special issue, and having found the accused insane, the trial was indefinitely postponed, and the criminal committed to an insane asylum, there to be kept until a recovery would permit of the trial. An appeal was taken from this order, and the higher court, after a careful examination of the statute, declared that it was legal.

An interesting statement is given of the common law bearing on the subject, and it was stated that if a criminal became insane after the crime was committed and before he was arraigned, he was committed to prison until the disability was removed. The same course was taken if he became insane after the plea of not guilty was put in, and before the trial. If there was any doubt as to the insanity, the question was usually tried in a summary way by a jury.

In such cases it was, however, in the discretion of the court whether to try the preliminary question of insanity by a jury, or adopt some other mode. In one case the Attorney-General prayed an inquest, which was immediately granted, and the investigation was proceeding in a summary way, when Lord Denham, C. J., stopped the prosecution from calling any further witnesses, and virtually charged the jury to return a verdict of insanity, which they did. The prisoner was thereupon ordered into custody until the further direction of the Queen was made known. The court was authorized to make inquisition of the insanity of the prisoner by a jury or otherwise, as it deemed most proper. The inquisition was only preliminary to the trial of the offence, and had no bearing on the guilt or innocence of the prisoner. It was entirely collateral to the main trial, which was indefinitely postponed until the prisoner's sanity and capacity to act for herself on such a trial should be restored. The statute certainly did not give a jury trial as a matter of right upon such collateral issue. Undoubtedly it may, in a proper case, make such inquisition by a medical commission or otherwise, at its discretion.

In the time of Sir Matthew Hale it was said there were "two sorts of trials of idiocy, madness, or lunacy; the first, in order to the commitment or custody of the person and his estate, which belongs to the king, either to his own use and benefit, as in case of idiocy, or to the use of the party in the case of accidental madness or lunacy; and in order hereunto there issues a writ or inquisition to the sheriff or escheator or particular commissioners, both by their own inspection and by inquisition to inquire and return their inquisition into chancery; and thereupon a grant or commitment of the party and his estates ensues; and in case the party or his friends find themselves injured by the finding him a lunatic or idiot, a special writ may issue to bring the party before the chancellor or the king to be inspected." The course outlined in the Wisconsin case is a very common sense one, and has been adopted by a number of the States, and noticeably so by New York, where the abuses of trying the issues of insanity and guilt at the same time were glaringly manifest.

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A curious case on insanity is reported in a Missouri court, where the question arose as to the validity of a tax title to real estate, the owner having allowed it to be sacrificed because of a delusion that Christ had forbidden the payment of tribute, except to the church. In consequence of this idea he refused to pay any taxes, and the land was, after a time, sold. Subsequently a suit was brought to set aside this tax deed; and as it appeared that the insane person had not been represented on the trial by a guardian, and the purchaser was aware of the insanity, the relief asked for was granted.

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The Dairy Commissioner of New York has just made his annual report to the Legislature in regard to the working of the law passed at the last session absolutely prohibiting the manufacture and sale of oleomargarine. He states that probably 80 per cent. of the traffic has been broken up by his efforts, and that sixty arrests have been made. Of this number, eleven have been convicted and forty are still under indictment. A test case has been made as to the constitutionality of the law, and is now pending. It is curious to notice that the opinion given by William M. Evarts that the law was unconstitutional was used as an argument by those opposed to his election as United States Senator from New York. The Legislature did not, however, pay much attention to the objection.

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The powers of Health Boards are indirectly concerned in a suit just brought by a firm of cream-of-tartar mannfacturers at Edgewater, Staten Island, although the main point is that the Health Board of the town was illegally created, and had no real power at all.

The manufactory was thought to be a nuisance, so that the townspeople were greatly exercised over it, and as a result, a Health Board was at once appointed, and took active measures to suppress it. There were numerous threats to burn down the establishment, and so serious did the situation become that the proprietors became frightened, and closed up the works voluntarily. Having lost a good deal of money by this course, and believing that the Health Board was illegally appointed, the firm has brought suit against the town and its improvised Board, claiming $104,000 damages. The trial has not come off yet, but promises to be interesting.

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A case was tried not long since in the United States Court at New York, to see if a person could

be held liable for taking his children, who were sick with the whooping-cough, to a boarding house, where there were a large number of people. The result was that the children of the landlady became sick, and the boarders in order to avoid the contagion left in a number of instances. The court held that a person had no right to spread the disease by taking his family about from place to place, and if he did so he was liable in damages. It was stated that taking infected animals from one place to another was negligence, entitling a person to sue for damages, and that there was even greater reason for holding the offender liable in the case of human beings. A motion for a new trial was therefore denied.

Sanitary Influence of Forest Growth and Public Squares.

Dr. J. M. Anders, of this city, read a paper on "Sanitary Influence of Forest Growth and Public Squares," before the Philadelphia Social Science Association, at the Hall of Mercantile Library, January 29, 1885. He began by stating that the remonstrances of the public press, as well as of scientific writers, against the wanton devastation of our primitive forests were not needless, and he cited the experiences of many European and Oriental countries in proof. Wherever, in past time, the forests have been cleared away by a people, the effect has been the drying-up of the smaller streams, followed by infertility of the soil, insalubrity of climate and frequently utter desolation. Forests have a mechanical influence. Clumps and belts of trees act as efficient interceptors of wind-currents, and modify extremes of temperature. They also afford efficient protection from malarial diseases. Forests are great natural dispensers of moisture, and exert considerable influence upon the hydrometeorology of the region in which any fair proportion of woodland exists. Forests produce ozone, and it cannot be questioned but that ozone is the chief natural purifying agent of the atmosphere from all organic matter. The influence of forests upon the soil and running streams cannot be over-estimated.

From these various influences of forest growth, continued Dr. Anders, it is quite clear that they exert a potent effect upon the salubrity and healthfulness of a locality. The proper ratio of woodland for ordinary hygienic purposes is not less than twenty-five per cent. Forests are capable of rendering valuable and energetic service in connection with health stations. Thus at a resort of medium altitude not more than fifty per cent. of forest area would produce an effect suited to cases of consumption requiring a comparatively dry climate. Again, in those predisposed by inheritance to consumption, a residence in an atmosphere such as that described would prove a most powerful prophylactic measure. In all the various conditions of consumption in whose treatment the element of dryness is indicated, the air of the pine grove offers advantages superior to those of forests composed of different species, for the reason that pine trees exhale less moisture, while they possess all the other advantages mentioned, such as the generation of ozone, protection from malaria, and objectionable wind currents.

The lecturer then passed to a consideration of the public squares, which, he said, might be looked upon as forests of reduced size, and nowhere could trees and ornamental shrubbery prove their virtues to greater advantage to public health than by improving the conditions of a vitiated city atmosphere. The same ratio of woodland for sanitary purposes (twenty-five per cent.) should be assigned for retreats of this kind, but as this would be impossible in those portions of older cities already densely built up, a near approach to the proper standard might be attained by the more general planting of trees on either side of our thoroughfares. This latter suggestion, if carried out, would have the effect of improving the air of the streets, which is really the air we breathe, and thus by means of free ventilation, a purer and wholesomer atmosphere could be admitted into our dwellings. Again, public squares form a convenient substitute for a more complete change of air in the cases of that large class of little patients suffering from infantile diseases of summer. There is no fact better established than that the usual summer ailments of infants can be most successfully treated by a change of air.

In conclusion, Dr. Anders said that there was no more important subject inviting the attention of municipal law-makers than that of open squares and their keeping up under proper regulations. He thought it no exaggeration to say that any improvements they might make in this regard would be rewarded by a realizing sense of having done the greatest good to the greatest number.

Good Advice to Physicians.

The following wise counsel we note from the *Maryland Med. Jour.*, January 17, 1885:

At this season of the year the practitioner of medicine is usually interested in gathering in the results of his past year's labor. It is eminently a time when his thoughts turn from the pursuit of scientific speculations to the every-day affairs of life, which must press with more or less weight upon all who struggle for the necessities of life. Whatever motives may actuate a few scientific devotees, the fact remains that the vast majority of medical men are working and toiling for bread and meat for themselves and for their families. The doctor has necessities, just as other people, and he generally works harder than the majority of people to meet these necessities. He has obligations to meet just as other people, and, as a rule, must depend upon his medical work to meet them. If, in addition to his scientific attainments, he possesses a fair allowance of business thrift and enterprise, his obligations are generally met, and the hand of penury presses lightly upon him. Unfortunately, however, a large number of medical practitioners are deficient in those qualities which go so far to make their toils light and their obligations easy. Many physicians are careless in money matters. They are poor collectors, and from this fact are often indifferent creditors. They are frequently too easy in demanding what is due them, and correspondingly careless in meeting their own obligations. In this way they lose a large share of their hard-earned services, and become, in consequence, involved in their responsibilities to

others. We have known a physician to mortgage his inheritance, to borrow money from banks and money-lenders, to meet pressing family expenses, rather than enforce collections from patients amply able to discharge their obligations to him. It is easy enough to see the result of such a method as this. A look into the homes and surroundings of the widows and orphans of many deceased medical men is a sufficient commentary upon this system of medical practice. The statement is often made that the profession is overcrowded, and is in great danger of impoverishment from this circumstance. We believe that the true danger is from another direction. It comes rather from the use of faulty methods of conducting practice, from neglect and carelessness in collecting bills for services rendered, from undercutting and underbidding for patronage. The effect of a system of lowering fees, and of careless collections, will affect an entire medical community. One physician can disorganize a whole section of a city, town, or country in which he may happen to reside, by adopting methods after this manner. Because a physician is engaged in a peculiar character of public service, is in itself no reason why his business methods should vary widely from those adopted by others who work for the public good. We certainly would not undertake to encourage a purely monetary view of medical work. The physician who sees only in his work a result in dollars and cents, has not the highest conception of his art.

But the physician should not confound his dual relations to the public. He should not be carried away by a false sentiment on the one hand, or a purely mercenary spirit on the other. There is just blending of the two, and he should aim to conduct his medical work on a basis that will insure respect, authority, and a just compensation for his services as a public servant.

To insure this respect as a doctor (teacher) it is just as necessary that he should be a man of integrity, of scrupulous honesty, and of correct business dealings as that he should possess medical attainments. The public does not always form its estimate of a physician by his skill or knowledge. Indeed, his moral and personal qualities may far over-balance his astuteness and learning. The man who seeks public patronage upon his scientific attainments and nothing else, is far less likely to succeed in securing it than the man who relies upon his moral and personal qualities with only a modicum of medical ability. In other words, the practitioner of medicine must be possessed of not only skill and learning, but of high moral, social, and personal qualities as well, if he would attain the highest position of respect and influence in any community.

Turning, now, to the purport of our remarks, the season of the year suggests a collection and settlement of accounts; it calls for a few weeks to be given up to business considerations. Let every physician make off his accounts, enforce their collection, and then discharge his business obligations. The surplus should find its way into safe and judicious investments. The inquiry may suggest itself, why venture such advice? We answer, we believe it is needed. Our work as journalists brings us into relations with many physicians. We know how careless and reckless many of them are in money matters. We know that many of them fail to collect what is due them, and many more fail to pay what they owe others. We do not attribute such failures to dishonest principles. On the contrary, we believe that many of these very men would give away their last cent if asked for it. They are generous, but not just. Their faults are the outgrowth of a recklessness and carelessness in matters of business, which, if applied to their habits as practitioners of medicine, would make them dangerous citizens to any community. Therefore, we say to those who are careless, collect what is due you, square up accounts, and lay aside a surplus for future use.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended February 14, 1885.

Guiteras, John, passed assistant surgeon. When relieved at Key West, Fla., to proceed to Charleston, S. C., and assume charge Feb. 11, 1885.

Kalloch, P. C., assistant surgeon. To report to passed assistant surgeon Peckham, at Wilmington, N. C., for examination for promotion, Feb. 10, 1885.

Glennan, A. H., assistant surgeon. Relieved from duty at New Orleans, La., to proceed to Key West, Fla., and assume charge, Feb. 11, 1885.

RESIGNATION.

Heath, W. H., passed assistant surgeon. Resignation accepted by the Secretary of the Treasury, as tendered, Feb. 14, 1885.

Items.

—To keep the bowels open in dyspepsia Prof. DaCosta says the best thing is aloin gr. $\frac{1}{10}$–$\frac{1}{5}$ twice a day.

—Sir William Jenner, of London, commenced life as an apothecary in a small back street, and for a long time the battle of life fell severely on him.

—Prof. Bartholow speaks very favorably of the latest substitute for quinine, to wit: antipyrine; and says "it is a certain and powerful antipyretic."

—Dr. Piffard recommends a solution of the bromide of arsenic, one per cent., for pimples. One or two minims should be given in water before meals.

—In the *New Orleans Med. and Surg. Jour.*, Jan'y, 1885, Dr. J. McF. Gaston, reports a case of perforated fracture of the cranium, followed by epilepsy.

—In the *St. Louis Courier of Medicine* for Jan'y, 1885, Dr. Wm. C. Glasgow reports a case of aneurism of the aorta, communicating with the superior vena cava.

—A radically disposed aspirant for obstetrico-chirurgical fame, was once asked what he would do in a case of post-partum hemorrhage. He promptly replied, "dilate the os and search for bleeding vessels."

—Before a recent meeting of the Clinical Society of Maryland, Dr. C. W. Mitchell exhibited a spleen which weighed only one drachm. He

could give no history of the case; the individual was a large, well-nourished man.

—De Lavra (*El Siglo Medico*) gave extract of gelseminum in a case of refractory sciatica in a woman eight months pregnant. He gave three doses of one grain each. The cure was rapid and permanent.

—The Fellows of the Royal College of Surgeons of Ireland, have voted to concur with the Council of the College in having the charter altered, so as to admit women to all diplomas of the college on terms equal with men.

—The Cleveland, Ohio, Board of Education has issued an English version of the Brussels Manual for teachers, and adopted it for use in the public schools. This manual contains brief instructions as to the first symptoms of transmissible diseases.

—Labbe states that he has had favorable results with salicylate of soda in cases of sciatic and supra-orbital neuralgia, where quinine had failed. L. prescribes ʒij of salycilate of soda in the first two days; ʒj on the third day, before eating, with a little Vichy.

—Dr. F. A. Burrall, of New York, in the *New York Medical Record*, says that salt and water will readily cleanse the cups of the Gaiffé battery after they have been used. He adds, "those who use this convenient faradizer will, I think, appreciate the benefit of this information."

—A proposition was set on foot some time since to hold an International Conference on Sanitation. It is stated that the project, which was mainly initiated by Signor Manzoni, the Italian Minister for Foreign Affairs, will shortly take definite shape at a meeting to be held in Rome.

—In the *Archives of Medicine* for December, 1884, Dr. Henry B. Sands publishes a valuable paper on the rupture of veins, with the report of a case in which the rupture of a deep femoral vein was successfully treated by ligation of the ruptured vessel.

—Mayor O'Brien, of Boston, has appointed Drs. H. I. Bowditch, H. J. Bigelow, Francis Minot, R. M. Hodges, S. A. Green, J. G. Blake, W. L. Richardson, George B. Shattuck, and C. F. Folsom, an advisory committee in regard to the question of a possible epidemic of cholera next summer.

—Something very like heredity in crime was illustrated in a case which came before one of the Glasgow police-courts a few days ago. A boy of twelve years of age was found guilty of stealing a pot of marmalade from a cart in the street, and was sentenced to four years' detention on board a training-ship. In the course of the evidence it came out that at present the boy's mother, grandmother and uncle are in prison, while his father has deserted him.

OBITUARY NOTICES.

DR. LOUIS ELSBERG.

The death of Dr. Louis Elsberg, one of the best known laryngologists in this country, occurred February 19, 1885, in New York city. He was born in Iserlohn, Westphalen, forty-eight years ago, and came to America with his parents when only thirteen years old. His family settled in Philadelphia, where he graduated at the Jefferson Medical College in 1857.

Until recently, he was President of the American Laryngological Society. As one of the founders and a professor of the Polyclinic Institute, he accomplished much in elevating the standard of professional skill in the special branch of medical science to which his life was devoted.

Dr. Elsberg was connected with all the more important medical associations of this country, and sustained honorary relations with many similar societies abroad. His writings were extensive and his decisions universally accepted as authoritative. He was the editor of the *Archives of Laryngology*, and a regular contributor to Schmidt's *Jahrbuecher*. As the author of a work on the "Throat and Voice," he attracted much attention. He was a frequent contributor to the Medical and Surgical Reporter, and at one time took charge of a department in the *Compendium of Medical Science*. His death was attributed to pleuro-pneumonia.

WILLIAM BRAITHWAITE, M. D.

Mail advices from England announce the death of the well-known English physician and surgeon, William Braithwaite, the founder of *The Retrospect of Medicine*, who died at his home in Leeds on January 31. *The Yorkshire Post* of February 2, contains the following:

He was the oldest medical practitioner in Leeds, and in his large and varied practice he was esteemed on all hands, both on account of his great knowledge and his sympathetic and kindly disposition. Dr. Braithwaite was born in 1807, and was therefore in his seventy-eighth year. His health for some time past has been such as to cause serious apprehension on the part of his family and friends, and his death on Saturday was not altogether unexpected. He was brought up by the Rev. Richard Hale, at Harewood Vicarage, and was apprenticed to the eminent surgeon, Mr. Thomas Teale, and afterward to his equally eminent son, Mr. Thomas Pridgin Teale, so that he pursued his medical curriculum under exceptionally favorable circumstances. He also studied at St. George's Hospital. The deceased gentleman began practice in Leeds on his own account in 1830, and filled the post of honorary surgeon to the Eye and Ear Infirmary, and lectured at the Leeds Medical School on the diseases of women. Though occupied in the management of a large practice, he found time to add materially to the literature of his profession. In 1840 he began a medical work which has since become widely known. Its title is *The Retrospect of Medicine*. It is published half-yearly, and has now reached its ninetieth volume. It is republished in America, where it is widely known and as highly valued as here.

MARRIAGE.

CONE—DUNNUM.—January 31, 1881, in Brattleboro, by F. E. Tower, Dr. C. B. Cone and Nellie M. Dunnum, both of Springfield, Mass.

DEATH.

BIRD.—October 15, 1884, of typhoid fever, at his home, The Lindens, South River, Anne Arundel county, Md., William P. Bird, M. D., aged 58 years.

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Original Department.

Lecture.

CLINICAL LECTURE ON DISEASES OF WOMEN, DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROF. T. GAILLARD THOMAS, M. D.

Reported for the Medical and Surgical Reporter.

EXTIRPATION OF THE UTERUS.

Gentlemen: Those of you who were present at my last clinic at the Woman's Hospital, six days ago, will be interested, I think, in hearing how the case in which I removed the entire uterus has been progressing since the operation; and it affords me great pleasure to tell you that there has never been any increase of temperature, or the slightest unfavorable symptom of any kind. The patient now, therefore, may be safely said to be out of danger, and already she has been removed from the isolated cottage in which the operation was performed, to a room in the general hospital building. This, I may say in passing, is the fifteenth case in which I have operated for the removal of the uterus; and of these fifteen, eight have recovered, while seven have proved fatal. In considering this percentage of deaths, however, it is well to remember that every one of these fifteen patients would certainly have died if the operation had not been undertaken. I am perfectly sure, also (or at least as sure as one can be of anything which he cannot positively demonstrate), that out of the next fifteen cases in which I perform this operation I can save a larger percentage of patients than this; for in looking back over those which have terminated fatally I can detect mistakes or lack of certain precautions on my part, which, without doubt, contributed to the unfortunate result.

OVARIAN TUMOR IN A YOUNG GIRL.

Our first patient to-day is Margaret H——, born in Nova Scotia, aged eighteen, and single. The history which she gives of herself is a very striking one in many respects. She says she has been sick for two years, and that up to two years ago she was perfectly healthy. At that time she had a very hard fall, striking flat on the abdomen, and the next day there came on a very severe uterine hemorrhage. This flowing continued for several months—three at the least—and she says she then called in a physician, who gave her some medicine, which gradually stopped it. Since then, however, there has never been any return of the menses; but as time went on, she noticed that her abdomen was gradually growing larger. She is now as large as a woman ordinarily is at the eighth month of utero-gestation, and she says there has been no menstrual discharge for at least eleven months.

The abdomen of this young girl presents, then, a large hard mass, and she comes here to-day to find out what the trouble is. Suppose that, instead of coming to the college, she had gone to the private office of any one of you. You can see at once that very delicate questions would have arisen for you to decide, and that a great deal would have depended on the diagnosis which you made; for the case is one of importance in many ways. In the first place, she might have slipped on a sidewalk of a city like this, and, attributing all her trouble to the fall, might have called upon you for an opinion which would justify her in

bringing suit for damages against the municipal authorities for the condition of the streets. Thus, next week I shall have to make an examination in the case of a woman who slipped and fell three years ago, and who ever since has suffered so greatly from dyspareunia, that marital life is a serious burden to her. In consequence of this she is bringing suit for $12,000 against the city, and I shall have to be extremely careful in expressing an opinion as to whether or not the trouble of which she complains is really attributable to the injury incurred in the fall.

Another important point to decide here is, what sort of an abdominal tumor is this, and what connection has the amenorrhœa with it? Perhaps the amenorrhœa may be natural, and the tumor a living one. As to the statement of the patient that it has continued for eleven months, that should have no weight whatever in affecting our opinion of the case. Many instances have, unfortunately, occurred in which the abdomen has been opened and the trocar plunged into a tumor supposed to be ovarian, which proved, to the operator's chagrin, to be nothing more or less than a gravid uterus. If utero-gestation should really exist, and you should express the opinion that this was not the case, or if just the opposite of this should be true, you can readily see in what an unpleasant position you might place yourself. Let me show you, then, how I would advise you to conduct your investigation in a case like this, in such a way as to avoid error and arrive at the truth. The problem you have to solve is, what is the character of this tumor, and what its connection with the uterine hemorrhage and the subsequent amenorrhœa?

What, now, might it be? It might possibly be any one of thirty or forty different things; but the most of these conditions are so exceedingly rare as to render it unnecessary to take them into account at all. What, then, are the things that it is really likely to be? First of all, in every such case you should always, without any exception whatever, think of utero-gestation. Even if it were one of the vestal virgins themselves, let this be the first supposition on which you proceed with your examination.

At the period of pregnancy, when the abdomen is as large as in the present instance, the cervix ought to be quite soft and a little patulous, and the markedly protuberant anterior wall of the uterus bulging in front of it; while through the os something hard (whether the head or the back of the child) should be felt moving up and down. Instead of this state of affairs, I found on examination here the cervix and uterus of a virgin, and venturing, on account of this, to pass the probe, it entered the cavity, which I ascertained to be empty for two and a half inches, and in a direction which showed the uterus to be turned backwards. But, notwithstanding all this, the patient might still be pregnant; for this might possibly be one of those rare cases where there is a double uterus. I began, therefore, my examinations on the outside of the abdomen. If in a case of pregnancy you keep your hands steadily upon the uterine tumor for some time, you cannot fail to detect a hard mass and the movements of the child. Then, with careful auscultation you ought to be able to distinguish the fœtal heart-sounds, and the so-called placental *bruit*. The latter is in reality a uterine *bruit*, however, as the sound is caused by the rushing of the blood through the uterine sinuses. Nothing of the kind was found in this case; nor were there any mammary indications, or any other sign of utero-gestation whatever. This hypothesis is, therefore, to be discarded.

Secondly, the abdominal enlargement might be caused by a large uterine fibroid; but in that case the tumor would be very hard and unyielding. Here, on the contrary, I can get a distinct wave on palpation. Has the patient, then, ascites, which might perhaps too be due to disease of the liver or of the peritoneum? If this were the case, there would be perfect resonance on percussion at the upper part of the tumor, from the fact that the intestines would float on the top of the water. There is, however, not a trace of resonance at the top, the percussion-note being perfectly flat at that point, while there is resonance at the sides, much more marked on one than on the other. She has not, therefore, ascites.

We arrive at the conclusion, then, that she is probably suffering from some form of cyst. This might possibly be of the liver, the kidney, or some other organ; but there is one kind of cyst that is so vastly more common than any other that we will be hardly likely to err if we conclude it to be of this character, and that is the ovarian. There are special reasons also for supposing it to be an ovarian tumor. The mass extends fully down to the pelvis, and it has pushed the uterus backward and downward, as we have previously ascertained. To show you how valuable I regard the former of these signs, I will mention that in a case in which I operated about six months ago, as soon as I found that there were intestines between the tumor and the iliac fossa, I confidently

asserted that whatever else the growth might be, it was certainly not an ovarian cyst. The result proved it to be an enormous cyst of the kidney, its size being one and a half times as large as my head.

So much for the diagnosis of the tumor: now for the question of its etiology. Let me caution you in the first place to beware how you give your support to the hypothesis (on which a suit for damages may be based) that because a certain difficulty from which a patient is suffering came after a fall or other injury, that it is the result of that injury. Some time ago a lady consulted me who said that she had a severe fall upon the back, and that profuse uterine hemorrhage had immediately followed. From her account, I supposed that it was probably a typical case of acute retroversion of the uterus; but when I made a vaginal examination, what was my surprise to find that instead of this there was advanced carcinoma of that organ. Yet the patient until that time had never had any hemorrhage or other symptom to indicate the presence of malignant disease. You must be on your guard, therefore, in regard to *post hoc, propter hoc*. I doubt not that the fall was the exciting cause of the hemorrhage here, but do not believe that either the hemorrhage or the amenorrhœa would have resulted if the ovaries had been in a healthy condition at the time of the accident. I am speaking only from experience; but in the light of that I do not hesitate to say that this girl's trouble is not due to any such cause. On the contrary, I believe that at the time she fell she had cystic degeneration of both ovaries. The fall, however, probably did cause the rupture of one or more of the ovarian cysts, and thus gave rise to the hemorrhage; while as the hemorrhage continued, the ovary went on increasing in size.

Finally, as to the prognosis. Unless ovariotomy is performed, it is a completely hopeless one. I need not say how fully established is the point that drugs are utterly useless in this affection. You will doubtless hear of many cases of ovarian tumors which have been cured without resort to the knife; but the explanation of this is, that they have not been true ovarian cysts. It not unfrequently happens that a patient comes to an ovariotomist with a tumor of considerable size, but because he thinks it is not at the time sufficiently large to demand removal, he tells her to return to him in six months; yet when she comes back to him at the end of that time, the growth may have entirely disappeared. This is because it was a par-ovarian cyst, a simple cyst of the broad ligament, which contained nothing but pure serum; and it is the cases of this character in which recovery takes place spontaneously, though the cure is generally attributed to whatever medicine the patient happens to be dosing herself with at the time.

This being, without doubt, however, a true cyst of the ovary, ovariotomy becomes imperatively necessary. When, then, shall the operation be performed? At once, I should say. The late Professor Peaslee, one of our highest authorities on the subject, was in favor of postponing the operation to the last possible moment, on the ground that the patient ought to be permitted to enjoy life as long as she could. But the fact is, that the patient cannot enjoy life with such a tumor. Its presence makes her utterly miserable, and after it has attained a certain size, the sooner its removal is accomplished the better; not only because of the inconvenience and suffering which she will be spared, but because her chances of recovery will be much better than if it is postponed too long. The tumor in the present case now, no doubt, weighs twenty-five or thirty pounds, and it is high time that it should be gotten rid of.

I feel almost certain that double ovariotomy will have to be performed here; and for the reason that the patient has not menstruated for eleven months. The fall, certainly, had nothing whatever to do with this, for women are continually meeting with all sorts of accidents and injuries, but they go on menstruating just the same if the ovaries are healthy. It is the cystic degeneration of these organs, and not the fall, which has put a stop to this young woman's menstruating.

CYSTS OF THE UTERO-VAGINAL GLANDS.

Mrs. Ann R——, thirty years old, has been married three years, and has had one child. This is a very acute case compared with most of those that we meet here, as she says she has been sick only eight days. Eight days ago she began to suffer intense pain, accompanied with a burning sensation, whenever she attempted to pass urine, and yesterday she noticed, for the first time, a lump gathering within the vulva. This is the history.

One of the great advantages of a clinic like this is, I think, that many of the cases which you see here are likely to present themselves to your minds when in the future you meet with similar ones in your own practice; and it may be that many years from now the memory of some special case here at the clinic may enable you to

successfully treat one of the same character which you then meet with for the first time yourself, and which might otherwise have proved a puzzling one to you. Thus, the present case may fix itself in the memory of some of you, just as one that I will now mention did in my own. Twenty years ago, a lady from the South consulted me for aggravated dysmenorrhœa; the pain coming on during the first day of the flow and being excruciating. It was before the days of the hypodermic syringe, and her suffering was so agonizing that nothing seemed to give her much relief. After remaining in New York for a number of months without receiving any permanent benefit, she returned to her home in the South, where some time afterward her physician removed a small fibrous polypus, hanging by a pedicle from the uterine canal; and after that she had no further trouble. The explanation of the case was, that this little fibroid, being comparatively free in the cavity, had acted like a ball-valve in preventing the escape of the menstrual blood, and thus set up the uterine contractions which caused the patient such extreme pain. Gradually, the fibroid worked itself downward along the uterine canal, until it was finally extruded from the cervix, when its removal became a very trifling matter.

Since then, I have never met with a case in which the symptoms were quite the same as in this case until this very day, when a lady came to my office who suffers in precisely the same manner. Whether the trouble is due to the same cause, I do not know; but with the experience of the other case in mind, I shall at all events take the precaution of dilating the cervical canal with sea-tangle, and examining to see whether there is not such a fibrous polypus present; and it probably would not have occurred to me to do this if I had not come across the other case twenty years ago.

In the case now before you, which, perhaps, may recur to some of you many years from now, there is a cyst of considerable size under the right *labium majus*, which is excessively painful to the touch; and under the left arm there is a similar, though smaller, cyst.

So much irritation have these cysts caused, that there is now quite a severe vulvitis in consequence. If you did not make a correct diagnosis, this case might give you a good deal of perplexity; but if you recognize its true character, you would find it one of the most curable cases to be met with in practice. These cysts are due to a degeneration of the vulvo-vaginal glands, whose excretory ducts have been closed by inflammatory action. The vulvo-vaginal glands were first described by Bartholinus, after whom they are often called; but, strangely enough, his description was entirely lost sight of for a long time, and they were rediscovered, as it were, by M. Huguier, of Paris, in 1841. When they become inflamed vulvitis, urethritis, and more or less vaginitis, are the results, as in this case, and coitus becomes utterly intolerable. In this condition all sorts of lotions and soothing applications are often ordered; but such treatment is absurd, for the reason that the ducts of the glands, as has been mentioned, are closed by the inflammatory action. If we could probe them with the same skill that the oculist does the lachrymal duct, good results might perhaps be secured by the operation; but I have never heard of such a thing being done. The treatment that I unhesitatingly recommend in such cases is to snip off a section of the cyst (having first anæsthetized the patient), and then stuff it with carbolized cotton. This cures permanently, because the gland soon disappears entirely after the operation. The French writers advise dissecting out the gland; but the great objection to this procedure is that a branch of the pudic artery is very liable to be severed in it, and as the artery lies very deep under the ramus of the pubes, it is difficult to control the hemorrhage that results.

COMMUNICATIONS.

SUCCESSFUL TREATMENT OF PSOAS ABSCESS.

BY J. M'F. GASTON, M. D.,
Of Atlanta, Ga.

A full report of this case is presented under the impression that these details are essential to a proper comprehension of its exceptional termination.

On September 29, 1884, the case of A. B. came under my care, he being a young man of vigorous constitution eighteen years old, who had been a student in a literary institute of upper Georgia, and had spent his summer vacation in the lower part of this State and in Florida. Some weeks previously he had pain in the lumbar region, with fever, for which sulphate of quinine had been taken, and a blister had been applied upon the right hypochondriac region.

When he came into my charge, there was a coated tongue and some sensitiveness over the kidneys, with a frequent inclination to urinate,

and he had torpid bowels. Upon testing the urine there were no evidences of albumen, nor was there any deposition of solid matter on standing. His disease had been mistaken for rheumatism by another medical attendant. With a view to correct the biliary function, and to relieve the renal irritation, he was prescribed:

℞. Calomel, 18 grs.
Nitrate of potash, 60 grs.
Mix and divide into 6 powders, of which take 1 every two hours.

Also he was ordered externally:

℞. Pomade of belladonna, 1℥.
Camphor, 1℥.
Iodine, 5 grs.
Iodide of potash, 30 grs.
Mix, and apply little by little over the kidneys and liver, with a poultice of flaxseed applied frequently to the same regions.

The medicine having operated, on the following night, September 30, he was directed as follows:

℞. Dover's powder, 12 grs.

Take with interval of 2 hours before bedtime. Chicken soup with rice was recommended as diet, with a cup of tea and toast night and morning.

October 1, 1884. The tongue remained coated to some extent, and the renal irritation had not disappeared, so that I prescribed the following:

℞. Infusion of buchu leaves, 10 ounces.
Syrup of squills, 2 ounces.
Soluble cream of tartar, 1 ounce.
Mix and take half a wine-glass every two hours.

Finding upon examination over the liver and kidney of the right side, a saliency with indications of local inflammation in their respective localities, four leeches were applied over each protuberance, with directions to apply subsequently cataplasms of flaxseed.

October 2, 1884. The general and local indications called for a repetition of the calomel and nitre, so that the prescription of the 29th of September was used again in the same form, with a moderate effect upon the bowels, and with evident relief to the symptoms of derangement in the biliary and urinary functions, and subsidence of the local swellings.

During three days there had been no febrile excitement, but now there was marked pain throughout the right lumbar region extending down towards the inguinal, through the iliac fossa of that side, and accompanied by considerable retraction of the lower extremity of the same side, with restlessness at night, so that an anodyne was given.

℞. Sulphate of morphia, 1 grain.
Sugar of milk, 12 grains.
Mix and divide in two powders. Give one, and in case he does not sleep within two hours the other may be taken.

October 3. Found that both portions of the morphia had been required to secure rest the night previous. The buchu mixture was resumed internally, and the belladonna ointment, with addition of an equal quantity of mercurial ointment was rubbed into the right lumbar and iliac regions, with a warm flaxseed poultice applied over this space continuously. The same prescription of morphia ordered for the night as on yesterday.

October 4. Both powders of morphia were required to allay pain and procure sleep. Continued treatment of previous day, including the anodyne.

October 5. A mitigation of suffering was apparent, but with impairment of the general strength, and deep-seated tenderness upon pressure in the iliac fossa, with restlessness at night, demanding both portions of the morphia to secure sleep, which came on only after midnight. The following formula was ordered to be prepared:

℞. Infusion of cinchona bark, serpentaria and cinnamon, tempered with elixir (antefebrile mixture of Lewis), 1 pound.
Chlorate of potash, 2 drachms.
Mix, and take half a wine-glass every two hours.

And for external application to iliac region:

℞. Collodion, 1 ounce.
Tincture of iodine, 2 drachms.
Camphor, 1 drachm.
Mix and apply with camel's-hair pencil night and morning continuously.

The sulphate of morphia was directed to be taken at a single time, in the dose of one grain at 9 o'clock p. m.

October 6. Without changing the treatment in other respects, the addition of spirits of turpentine was made on account of a slight tympanitic distention of the abdomen, giving one of the "Parvles d' Essence d' Terbinthine du Clertan" every two hours, along with the mixture of bark, etc., and a grain of morphia at night. This course was kept up for two days without any material change in the symptoms, excepting loss of appetite; and milk was the only article he relished as food.

October 8. With a view to a tonic and alterative influence, Fellows' syrup of hypophosphites was directed, in the dose of a tablespoonful every three hours; and finding that the deep-seated inflammatory action indicated the development of a psoas abscess; the collodion coating was discontinued, while camphorated mercurial ointment, with flaxseed poultices, was ordered over the space within the crest of the ileum, and extending

from the lumbar to the iliac, and down to the inguinal region, to be kept up from day to day.

October 9. To counteract a general tympanitic distention of the abdomen, and relieve the pain extending down the right thigh, this liniment was applied:

℞. Spirits of turpentine,
Olive oil, āā 2 ounces.
Camphor, 2 drachms.

Mix, and rub over the parts twice a day, leaving a flannel compress over the bowels.

The dose of morphine at night was reduced to a half-grain, but without inducing sleep until the latter part of the night, and was kept up thus. This general course, with the syrup of hypophosphites internally, the ointment and poultices over the iliac fossa, with the embrocation of spts. of turpentine to the lower bowels and the thigh, was observed for several days. But observing that there was an increased excitability of the nervous system with the further diminution of the anodyne, it was thought expedient to resort to another nervine preparation in place of the morphine.

October 13. This formula was ordered:

℞. Bromide of potash, 2 drachms.
Chloral hydrate, 1 drachm.
Elixir, 2 ounces.
Water, 4 ounces.

Mix, and take a tablespoonful every two hours at night until rest is secured.

Enemata were resorted to occasionally to move the bowels.

October 14. The effect of the repeated doses of the mixture taken last night was not satisfactory, as it had no soothing influence upon the patient, and it was therefore resolved to resort again to the sulphate of morphia in doses of ¼ grain at night.

October 15. There was copious vomiting on several occasions this morning, which was attributed to the disturbance of the digestive functions from the preparation of bromide of potash and hydrat. chloral; and I prescribed that good stomachic, old sherry wine, to be taken in portions of a half a wineglass every two or three hours, in connection with light nourishment.

October 16. As the stomach was still disordered with indications of acidity, my favorite corrective for this class of troubles was resorted to, with a happy effect in arresting the nausea and vomiting:

℞. Lime water, 3 ounces.
Camphor water, 2 ounces.
Peppermint water, 1 ounce.

Mix, and take a tablespoonful every hour.

From this time there was comparative relief from suffering, yet with the gradual development of a fluctuating prominence within the crest of the ileum, which was diagnosed as psoas abscess, and the poultices were assiduously applied, with a view to invite the purulent collection to the surface, so as to be discharged at an early day.

October 20. Dr. J. P. Logan was invited to see ths case with me, and upon examination he confirmed my judgment of the nature of the case; so that I proceeded to make an opening with a thumb-lancet into the softest and most salient part, midway between the point of the last rib on the right side and the crest of the ileum. A fine discharge of pus followed the withdrawal of the lancet through the orifice which corresponded to its breadth, and a drainage-tube was then introduced, extending some eight inches forwards and downwards within the sheath of the psoas muscle. It should be stated that there was no evidence at that time of the extension of the abscess posteriorly, and consequently there was no drainage indicated except in the direction of Poupart's ligament.

October 22. The following tonic was prescribed:

℞. Decoction of Peruvian bark, 1 quart.
Strong sulphuric acid, 1 drachm.

Mix and take half a wine-glass every three hours.

Generous living was recommended, including beefsteak and soft eggs, with milk punch. The discharge was profuse around and through the drainage-tube, and great relief was felt in all respects, excepting a sense of weakness and evident emaciation from the continuous drain.

October 26. The following record appears in my note-book:

℞. Sulphate of morphine, 1 grain.
Sugar of milk, 30 grains.

Mix and divide into four powders. Take one at night.

The anodyne had been gradually reduced to the dose of ⅛ of a grain for the twenty-four hours, and this sufficed to give him rest at night. Three drops of tincture nux vomica, with half a glass of port wine, was given every three hours in the day.

After the application of poultices were discontinued, owing to the gradual diminution of the discharge, compression was used over the surface, with a view to approximate the walls of the abscess, and the drainage-tube was discontinued. At this time a coating of the entire surface with the collodion mixture was resumed, and kept up until all discharge ceased.

In the meantime, there were indications of trouble in the deep-seated tissues of the lumbar

regions, posterior to the opening, but no signs of any discharge from that direction; and diurnal fevers, with slight rigor at the commencement, and followed by sweating, came on usually after midday, so that my colleague, Dr. J. P. Logan, was again invited to see the case with me on account of the constitutional disturbance.

October 30. Upon consultation, we concluded that most probably the developing abscess near the lumbar vertebra gave origin to the paroxysms as they corresponded to the stages of hectic fever; but in the event that there was any malarial complication from previous contamination of the system, the same kind of medication was calculated to combat either, so that we concluded to use the following prescription:

℞. Sulphate of quinine, 30 grains.

Divide in six capsules, and take one every two hours until four are taken to-day, and two remaining, with a like interval, to-morrow morning.

Afterwards, he continued to take five grains of the sulphate of quinine, twice in the morning for two days, and once for two other days, with almost complete relief to the paroxysms.

November 4. Finding that some fever appeared each afternoon, I ordered as a corrective, the following:

℞. Salicylate of soda, 2 drachms.
Iodide of potash, 1 drachm.
Fluid extract of jaborandi, 6 ounces.

Mix, and take a teaspoonful every three hours.

November 8. The periodical exacerbations having disappeared, he resumed the use of Fellows' syrup of hypophosphites.

Observing that the accumulations in the lumbar region caused some protuberance with evident fluctuations, and that no discharge from this source found an outlet at the orifice, which was still open, it occurred to me that another incision would be requisite immediately over the abscess. Accordingly, poulticing was kept up over this region for some days, and the presence of Dr. Logan was again requested to deliberate upon the proper mode of proceeding.

November 9. We met according to appointment, but greatly to our relief found that the purulent collection had passed out during the night at the original opening, so that no further incision was requisite. After poulticing over the entire surface, extending from the region of the lowest rib to the sacro-iliac junction, a compress was kept bound firmly over this space for some days, and subsequently the collodion, iodine, and camphor coating was kept constantly over this region, thus obliterating the cavity of the abscess by the agglutination of its walls.

November 12. The tendency to hectic passed away with the free evacuation of the pus, and the chief indication being to restore the strength, the patient was allowed the most nutritious food, with brown stout, and was directed to take the following tonic:

℞. Muriated tincture of iron, 1 ounce.
Tincture of nux vomica, 1 drachm.

Mix, and take twenty drops with a little sweetened water every three hours.

The ⅛-grain dose of morphine was only continued for a few nights.

November 16. Having dispensed with the use of morphine entirely, the French coca wine of Marini, prepared by Dr. J. L. Pemberton, of this city, was directed to be taken every three or four hours each day, in connection with the tincture of iron and nux vomica, and with decided good effect.

He progressed rapidly to convalescence, and at the close of the month of November was able to be about the room, and was gaining flesh as well as strength; so that early in December he left the city. A letter was received from him about the middle of the last-named month, reporting favorably in every respect, thus giving assurance of the complete cure of a well-developed case of psoas abscess within two months.

While the general treatment detailed was certainly advantageous in correcting the secretions and in supporting the powers of the organism under the exhaustive drain from the purulent collection, yet much of the good result is attributable to the local measures, in the prompt evacuation of the abscess, and the use of compression and counter-irritation for the obliteration of the cavity, developed first in the lower or anterior portion of the sheath of the psoas muscle, and afterwards in the posterior or upper portion, approximating the lumbar vertebra.

Under the conviction that this happy issue of my medical and surgical management in an aggravated complication of constitutional and local disorders, culminating in psoas abscess, may be worthy consideration by those having to treat similar cases, these clinical notes are submitted to the careful attention of my colleagues.

THE INCANDESCENT ELECTRIC LIGHT FOR THE EXAMINATION OF THE THROAT, NOSE, EYE, AND EAR; AN ELECTRIC OPHTHALMOSCOPE.

BY LOUIS J. LAUTENBACH, M. D.,
Of Philadelphia.

My experience with various kinds of lights has been derived from the examination of the throat,

nose, eye, and ear; as applied to other portions of the human body, I will not pretend to speak. In the present paper, I desire to call attention to the advantages of the incandescent electric lamp in the exploration of the parts before mentioned, but particularly in examination of the eye-ground.

Since the employment of the reflecting mirror, the illumination of the various parts of the human body, by means of artificial light, has been continually under discussion. As sources of light, the wax-candle, the oil-lamp, the gas-burner, the lime and electric light, have each been used. These lights have been modified in numerous ways to obtain the maximum brilliancy, the least yellowness, and to concentrate the light. The first was obtained by consuming a larger amount of material by means of an increase in the surface of the burners, and by increasing the thoroughness of combustion. As a result, we have the Argand burner, the Siemens' lamp, the student lamp, and other round and broad burners. To overcome the yellowness of the rays, slips of blue-glass have been interposed between the source of light and the reflecting mirror. To concentrate the light, convex lenses have been employed, being placed so as to intercept the light falling on the reflecting mirror; as illustrations, we have the Mackenzie concentrator and the Tobold lamp.

The lamps devised, in which it has been sought to incorporate one or more of these advantages, have been quite numerous; one is particularly struck by the number which have been designed for ear examinations. The Argand burner, the student lamp, the Tobold lamp, with, perhaps, one or two others, are about all which have been saved from the general wreck; of course, the lime and electric lamps are not here considered, both being but in their infancy; the Siemens' light is also passed by, because, so far as I know, the manufacturers have no intention of making them sufficiently small to allow of their introduction into private houses.

It is well known that there are two kinds of electric light—the arc light and the incandescent light. The arc light is occasioned by the combustion usually of carbon at the positive pole and the carrying to the negative pole of unconsumed, but intensely-heated particles of carbon. The light is of great intensity, and is, in consequence, of a violet-white color; it is, however, unsteady, having a strong propensity to vary in brilliancy, even sometimes to the point of absolute extinction. The most important objection, however, is the intense heat occasioned; it is mainly because of this fact that it is unsuitable for medical examinations; the intensity and unsteadiness being, however, also factors in precluding its use.

Believing that it will be impossible, for the present at least, to use the arc-light successfully for the examinations of special organs, I will not bestow more attention upon it, and will, therefore, use the terms electric light and incandescent light synonymously.

In the incandescent lamp there is no combustion, the carbon filament, within as absolute a vacuum as is possible at the present day, becomes incandescent by reason of the resistance it offers to the passage of a current of electricity.

HISTORY OF THE INCANDESCENT LIGHT AS APPLIED TO THE SPECIAL ORGANS UNDER DISCUSSION.

So far as I have been able to discover, Bruck,* a dentist of Breslau, was the first to construct and use an incandescent lamp for the examination of human structures. His instrument was known as the diaphanoscope. It consisted of a coil of platinum wire placed in a glass tube surrounded by a column of water. This was followed by Gustave Trouvé's† polyscope, which was exhibited at Baden-Baden in 1879. This consisted of an unprotected platinum wire placed in front of a concave mirror. The objection to its use was its heat, which sometimes was sufficiently great to fuse the platinum. This was followed by Dr. Nitze's‡ instruments for the examination of the urethra, larynx, etc. Shortly after this, Dr. A. Wellington Adams‖ published an account of an electric laryngoscope, which consisted of the ordinary laryngeal mirror, on the handle of which was a concave mirror, in front of which was placed a spiral tube containing a platinum wire in a carbonic acid vacuum. This wire was rendered incandescent by means of a Ruhmkorff coil. He used this instrument for the larynx and posterior nares. He promised that the description of an electric otoscope, which he proposed exhibiting before the Colorado State Medical Society, May 19, 1880, would appear in the September number of *The Colorado State Medical Journal* and *Rocky Mountain Medical Review*, but I have not been able to find any reference to this article.

About this time, Josef Leiter§ constructed in-

*Chambers' Jour., vol. 58, 1881, p. 314.

†Popular Science Monthly, vol. xvii., 1880, p. 110; also Annals of Anatomy and Surgery, vol. vii., 1883, p. 128.

‡Annals of Anatomy and Surgery, vol. vii., p. 127.

‖Archives of Laryngology, 1880, vol. i., p. 368; also, New York Medical Gazette, 1880, p. 324.

§Beschreibung einer instrumente und apparate zur direk-

struments for the examination of the various organs. He made use of the light derived from an incandescent platinum wire; this was usually placed behind a window or ledge, to prevent contact with the structures under examination. The instrument was cooled by the circulation of water. It, however, was necessarily bulky, and was either too warm, or else the light was so dim that nothing could be seen.

A year or two later, Carl Seiler* began to use the reflected rays of the Edison incandescent light, which he must have considered of value, as he writes: "I have no doubt that in the near future, when electric lighting will have been adopted universally, as gas is now, electric-lamps for the laryngoscope will supplant all other sources of light, with the exception of sunlight."

On the 16th of April, 1883, the instrument of Dr. Paul Helot and G. Trouvé was presented to the French Academy.† The description was published shortly thereafter.‡ The instrument was known as the frontal electric photophore. It consisted of a metal cylinder attached to the ordinary head-band. Within the cylinder is a small incandescent lamp; back of the lamp is a concave reflector; anterior to it is a strong convex lens to concentrate the light. This instrument has been successfully employed by Dr. E. C. Baber‖ for the examination of the throat, nose, and ear. About this time, Simanovoski§ published a description of an electric laryngoscope, but as yet I have not been able to obtain a description of the instrument.

Dr. Carl Seiler¶ exhibited his electric laryngoscope before the Pennsylvania State Medical Society, May 16, 1884. It consists of the ordinary concave head mirror, with a bar attached to its lower edge. The incandescent lamp is placed on this bar; between the lamp and the mirror is placed a strong convex lens, while between the lamp and the patient there is a mica shield. Dr. S. S. Cohen** advises the use of the incandescent light in connection with the Mackenzie condenser.

Dr. Laurence Turnbull* exhibited the laryngoscope of Dr. Starr† before the Philadelphia County Medical Society, October 22, 1884. It consists of an incandescent lamp, placed in a hollow cylinder of rubber, to the end of which cylinder the laryngeal mirror is attached. It is the object of this instrument to illuminate the parts under examination by means of direct rays of light. A very important measure incorporated in this instrument is a method of regulating the current, and thus regulating the illumination.

The objection to all instruments employing an incandescent platinum wire is that to obtain sufficient light the heat generated is so great as to fuse the wire. In Bruck's instrument its size debarred its employment except for oral examination; Nitze's instruments were too large for practical use; in Leiter's instruments, the two essential water-pipes made them too bulky; in Adams' laryngoscope the light was apparently too poor. Trouvé's frontal photophore is a very servicable instrument. Dr. Seiler's instrument is practically but the photophore placed in front of the head mirror; its disadvantage is its weight. The disadvantages of the Starr instrument are the slight heat occasioned and the fact that the eye is not thoroughly protected from the light.

Up to the present time, the incandescent light has apparently not been employed for the examination of the eye. Dr. Seiler,‡ speaking of his electric laryngoscope, writes that "it may be used for the examination of the eye," but does does not appear to have so employed it. I have been using the electric light for this purpose for a period of more than five months.

AN ELECTRIC OPHTHALMOSCOPE.

As will be indicated later on, I have employed the incandescent lamp in the ordinary situation of the gas stand, also within a Tobold condenser, as well as attached directly to the ophthalmoscope, employing the light with plane and concave mirrors, the latter of from three to fifteen inches focal distance. The method which has been of the most service where small lights only could be employed, was that adopted in the instrument here figured. Fig. 1 is $\frac{3}{4}$ natural size, Fig. 2 being the exact size of the lamp.

It consists of an ordinary Hunter's Loring swinging mirror ophthalmoscope, to which is sol-

ten Beleuchtung menschlicher Körperhöhlen durch elektrisches Glühlicht, Wien 1880; also, Annals of Anatomy and Surgery, vol. vii., 1883, p. 129.

*Diseases of the Throat and Nose, 2d edition, Philadelphia, 1883, p. 22.

†Proceedings of the French Academy, Paris, 1883, vol. i., p. 1164.

‡La Nature, Paris, 1883, vol. i., p. 416.

‖British Medical Journal, 1883, vol, ii., p. 916.

§Ejened. Klin. Gaz., St. Petersburg, vol. iii., 1883, p. 473.

¶Transactions Medical Society of Pennsylvania, vol. xvi., 1884, p. 349.

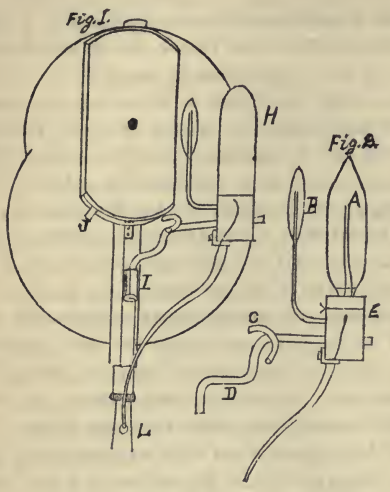
**Medical News, Philadelphia, vol. xlv., 1884, p. 81.

*Proceedings Philadelphia County Medical Society, vol. vii., p. 56; also, Polyclinic, Philadelphia, vol. ii., 1884, p. 77.

†Electrical Review, London, vol. xv., 1884, p. 424; also, Scientific American, October, 1884.

‡Transactions Pennsylvania State Medical Society, vol. xvi., 1884, p. 351.

dered the slot I, fitting into this slot is the arm D, which carries upon it a hard rubber cylinder,



E, which can be slid down closer to the mirror if desirable; this rubber cylinder carries upon its upper extremity the incandescent lamp A, over which is fitted the asbestos (non-conductor of heat) cap H, between which and the posterior surface of the lamp is the reflector. Fitting into the rubber base, E, is a wire carrying the biconvex lens B of $\frac{3}{4}$ inch focus. The lens can be approached to the light at will. It should, however, be placed at about half an inch from the filament. On the bar D is a cross-bar C, the ends of which strike against the projections of the swinging mirror J. This bar is of such length on either side as to place the lamp at an angle of 60°, with the general plane of the mirror: by this device, the swinging mirror is placed in position for one or the other eye, by adjusting the lamp for the same eye. The wires are carried from the hard-rubber piece either down to an opening L, entering a hollow fixed handle, or to a ring which slides easily about the lower end of the handle: this latter device allows of the ready detachment of the handle. Two asbestos caps are employed: in one the light makes its exit through a small round opening; in the other, which is only used occasionally, the opening is a vertical slit. The convex lens concentrates the light and renders it almost parallel. I have employed the plane reflecting surface in connection with this lamp, but have not found it as satisfactory. A concave reflector with a focal distance of three inches, I used without benefit. If the amount of light obtained in the eye is more than the observer desires, it is only necessary to revolve the lens B out of the field of light.

* * * * * * * *

This light will prove of advantage in the examination of the dark complected; whenever there is a small pupil; of myopics—in all of these cases giving us better illumination than we can obtain by other means. It will be of service in atrophic nerve cases, but its advantages are particularly marked in slight retinal inflammations, and for the study of the retinal circulation. Because of its intensity, it will allow us to make more thorough ophthalmoscopic examinations in cases of corneal, lens and vitreous opacities.

(*To be continued.*)

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. Seelye, A. M., M. D.

Transverse Myelitis.

This is the patient you saw the other day with a myelitis, (see page 268), and at that time there was loss of sensibility in all the parts below a line drawn across the abdomen, at the level of the umbilicus. This line of anæsthesia has not changed much since, but it appears to have risen a little higher. You observe that the place where a mustard plaster had been applied upon the abdomen, and the skin had peeled off, has healed over and new skin formed. There seems to be some tendency to sloughing, however, over the tuber ischii as the result of blistering with mustard, and it is not healing very well. But there is not any evidence of deep sloughing. The water still has to be drawn with a catheter twice a day, and the bowels move involuntarily. This combination of symptoms is not infrequently seen, namely a retention of urine with loss of power over the sphincter ani.

This man has had a pretty high temperature since you saw him. It is as high as 104.4° today, and most of the time it has ranged above 104°. Yesterday morning it was 100.4°, but it rose again in the evening. His breathing is now pretty rapid, and his face is flushed, and his hands are cold, and his expectoration is bloody, and the blood is in streaks, and it evidently comes from the lungs. The condition of the face and hands seems to indicate that the rapidity of the respirations is due to the presence of some pulmonary congestion. The other day I told you that the case might prove to be one of polio-myelitis of the anterior horns of gray matter, and not a myelitis affecting the whole cord; and I then told you that in polio-myelitis confined to the anterior horns, there is sometimes as much disturbance at the beginning as there was here. But the disturbances of sensation and the vesicle spasm disappear after a few days, leaving a loss of power only in the affected muscles, which is more or less complete. But here the loss of power

in the lower extremeties continues obstinately, and the muscles give no response to the faradaic current, and the vesical and rectal paralysis continues, and the disturbance of sensation seems to be spreading, and there is pulmonary congestion which may be due to a diminished power in the respiratory muscles; and so I now think that we have to deal here with a transverse ascending myelitis. There are signs also of a condensation, but not very marked, at the lower portion of the lungs posteriorly. This probably depends upon hypostatic congestion, rather than upon muscular weakness and diminished respiratory action.

Convulsions.

The man whom you saw last Thursday in convulsions, went out of the hospital yesterday. He had, on the evening of that day, two or three convulsions, which were very violent. But after that he made a good recovery. Very little information could be gotten from the man; he was a tramp. But he said that he had not had any such attacks before, and that the attack in which you saw him had been preceded by some indulgence. He went out in the morning, and remembered nothing after that. Now this abolition of memory in attacks of epilepsy is a very striking feature; though not an absolutely constant one; for in some instances the patient is shut off by an attack in the midst of some special utterance, and then after the seizure has passed off he resumes the sentence at the point where he was interrupted as if nothing had happened. But this is not very common. After a grand attack the memory is usually obliterated for preceding events which happened some hours before. Such was the case with this man, who was brought into the hospital about 2 o'clock p. m., and whether he was drunk or not previously is not known; but I am inclined to think that these convulsions were alcoholic in nature.

About a year ago a man came in here who had taken a large dose of chloral, and in twenty-four hours after his admission he had a number of convulsions quite as severe as those you saw in this man, and they lasted several hours, and were most violent in character. He was bled with no advantage, and he finally died. The post-mortem inspection showed no lesion within the brain, however. And had this man succumbed, probably his brain would have shown no lesion.

We frequently have here such cases of epilepsy as the result of alcoholism, but that was a case of special interest because it illustrated the difficulties which sometimes stare you in the face when you have to determine immediately the cause of an epileptic attack. In this case we fully excluded true epilepsy and apoplexy; and while the absence of albumen from the urine does not necessarily exclude uræmia, yet it seems that here the convulsions were not uræmic. So by a process of exclusion we are brought down to blood-poisoning, from something absorbed in the circulation as a cause; such as chloral poisoning in the former case, but alcoholism here.

—Spurious cubebs have recently been offered in the London market. They consist of the fruit of *Daphnidium cubeba*, which closely resembles cubebs in general appearance.

Medical Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, February 5, 1885. The president, B. F. Baer, M. D., in the chair.

Cervical Pregnancy.

Dr. E. E. Montgomery read a paper in which he recounted the history of a case seen by him in consultation with Dr. Alexander. The patient had been pregnant eight times; the last labor had been terminated by forceps. The present pregnancy had lasted three months when she was taken with severe pain and quite profuse hemorrhage. An examination under ether disclosed that the cervix was distended forming a globular tumor. The os, turned backward, was filled up with a tense membrane; breaking through it, the cervix was found to be a large cavity in which was the fœtus and its envelopes. The body of the uterus appeared like an excrescence upon the distended cervix; it would admit a finger and was lined by a decidua. The membrane below was continuous with the outer mucous membrane of the cervix, so that the remains of it hung as a fringe from the os.

This case differed from the few cases of this condition described, in that there was no contraction of the os; in the majority of cases it occurs in primiparæ and when discovered it was necessary to proceed to artificial measures to make an opening.

Dr. Goodell remarked that he had no knowledge of cervical pregnancy. One case which had been sent to him as such was epithelial cancer of the cervix. How could such a case be diagnosticated without a post-mortem examination? Dr. Montgomery's hypothesis of an arrested abortion is probably the correct solution of such a case as he has described. The fœtus might be forced out of the body of the uterus and arrested in the cervix by an unyielding os or by cicatricial bands. Some years ago, a physician of this city who had a large obstetrical practice, borrowed his ecraseur for the removal of a supposed uterine polypus, which proved to be a fœtus in its amniotic sac. Dr. Goodell had never been able to understand how an experienced man could make such a mistake, but the description of this case of cervical pregnancy has thrown light upon the matter. Dr. Montgomery's description of the distended cervix would apply very well to uterine polypus with a long pedicle, and a mistake in diagnosis might easily be made.

Dr. Montgomery questions the primary occurrence of cervical pregnancy. He believes the fœtus has originally taken its seat in the body of the uterus, and has been forced into its lower position later; but it might be primary, the internal os being patulous, the same conditions that sometimes cause placenta prævia might cause the entire fecundated ovum to be arrested in the cervix.

Ruptured Uterus.

Dr. B. F. Baer presented the specimens and related the history. Mrs. F., colored, 32 years of age, married ten years, had borne four children at term, and had one miscarriage. The first child

was forceps-delivered and was still-born. November 14, 1884, she was taken in labor. A midwife was in attendance, who pronounced everything correct. After a few hours of severe pains, the patient "felt something break in the womb" and labor ceased, but was replaced with sharp pains all over the abdomen. Blood escaped in great quantity from the vagina. Collapse ensued, and she was thought to be dead; a slow reaction occurred, and her attendants waited for labor to begin again. Dr. Fisher was called to see her ten days after the accident. He found her abdomen tender and tympanitic, a mass like the head of a fœtus in the right hypochondriac region. The pelvis was empty. Temperature 103°, pulse 108 and small. Rupture of the uterus, and escape of the fœtus into the abdominal cavity, was diagnosticated. Dr Baer was called in and confirmed the diagnosis. The patient refused operative assistance, and preferred to die in peace, but five days later asked to be relieved. Preparations were made for laparotomy. An examination per vaginam revealed a gangrenous pus escaping freely, and the placenta loose and hanging from the vagina. The hand passed readily through the os uteri and through a tear in the right wall of the cervix into the abdominal cavity, and came upon the trunk of the child. The latter was extracted through the vagina by version by the feet; it was putrid. The parts were well irrigated with carbolized water, and the hand, again introduced, entered an adventitious sac, and nowhere came in contact with intestines or other viscera. The uterus was well contracted and quite small. The uterus and sac were washed out with carbolized water until it returned pure. The patient died of septicæmia ten days after the removal of the fœtus. Dr. Baer is in full accord with the principles advanced by Dr. R. P. Harris in his paper, entitled "If a woman has ruptured her uterus during labor, what should be done to save her life?"—*American Journal of Obstetrics*, Oct., 1880, p. 809, in which he advises that the abdomen should be opened and the peritoneal cavity thoroughly cleansed. In this case, however, nature had protected herself by forming an adventitious cavity, and there could be no reason to open the abdomen to clean this out, as it could be reached from below more directly and without injury to the soft parts.

Dr. Henry M. Fisher: In Germany a distinction is made between lymphatic septicæmia and phlebitic septicæmia. In the first form the poison is absorbed by the lymphatics, and inflammation of serous surfaces with exudation is the consequence. In the phlebitic form, numerous emboli are formed and hectic fever and local pus formations, the result of these emboli, are found. At the autopsy, in this case, pleural and pericardial effusion was found. It will be remembered that peritonitis occurred very soon after the rupture.

Dr. Goodell remarked that he had come intending to criticise Dr. Baer's treatment of this case for not resorting to laparotomy, but he found himself agreeing with both Dr. Harris and Dr. Baer. In recent cases laparotomy should always be performed, but in fifteen days an adventitious sac had been formed, and the dangers to the patient would have been increased by operation. He had seen two cases of rupture of the uterus, both of them occurred in the practice of a physician who never used obstetric forceps, and had to send four miles for a consultant. in the first case peritonitis rapidly supervened, the abdomen became very much enlarged, and the fœtus could not be located by palpation. The abdomen was not opened. After long groping, the fœtus was found close under the diaphragm. He had great difficulty in extracting it, as the loops of intestines became entangled between its legs; the placenta was also found in the abdomen. In the other case, the body of the fœtus had escaped into the abdomen, but the head was still in the uterine cavity; it was delivered by forceps. Both patients died. In both cases it would have been far better to have opened the abdomen. *American Journal of Obstetrics*, vol. x., 1877, p. 478.

Dr. Harris is in accord with Drs. Goodell and Baer as to the proper treatment of the case reported. It was too late to do anything when the physician was called. The general opinion is coming around to coincide with his way of thinking concerning the propriety of laparotomy in all cases as soon as reaction from the shock of rupture and hemorrhage has been established. Of the cases reported, after such treatment, 50 per cent. have recovered. One woman has been reported as having ruptured her uterus in four successive labors, with delivery per vaginam and without laparotomy, and she survived it all; but such a case is phenomenal. Three cases in Europe have been treated by removal of the uterus as in the Porro operation: they all died. There seemed to be no reason for such a method. In most cases the split extends through the cervix, and thus free drainage from the abdominal cavity is secured. One reason for closing the cervical rent by sutures is to avoid the danger of cancerous growths to which that lesion is supposed to give rise.

Dr. Longaker remarked that many of these cases died from the profound shock and hemorrhage immediately following the accident. Two cases in his experience had died within two hours, one of them undelivered.

Dr. Baer was glad to hear Dr. Harris make the distinction as to the propriety of laparotomy in his case, where the patient was not seen until fifteen days after the accident and was suffering from septicæmia. He had intended to perform laparotomy, and was prepared for it; but when he found the newly-developed sac he changed his plan, as he thought nothing could be gained by it.

Ovarian Cysts.

Dr. Baer exhibited two ovarian cysts. Mrs. B., widow, entered my private hospital, December 18, 1884. She commenced eight months before to suffer from frequent calls for micturition with severe scalding pains, symptoms apparently of cystitis and urethritis. The uterus and ovaries were in good position and seemed normal, but two weeks later there was a burning pain in both ovarian regions with a perceptible bulging largest on the right side. The menses had ceased, and the doctor in attendance suspected pregnancy, but exposure was denied at that time. The abdomen enlarged rapidly, and the patient finally acknowledged the possibility of pregnancy, and

thought she felt movements of the fœtus. At seven months, uterine hemorrhages commenced and continued every day; the mammæ were atrophied; there were no signs of the presence of a fœtus; there was some fluctuation; the sound was passed, and the uterus was found empty and not enlarged; the face was wasted, and had an anxious expression, and the pulse was quick. A diagnosis of ovarian cyst was now made. A deep diagonal sulcus could be made out in the abdominal tumor, the largest portion being on the right side; the tumor was smooth-surfaced and without nodules. The cervix was soft, patulous, high up, and drawn to the left. When the tumor was moved the uterus moved with it, as shown by the handle of the sound. Immediate operation was advised and performed. Incision, three and one-fourth inches. Two large tumors were revealed; both were tapped; the left, which was free from adhesions, was withdrawn without difficulty, its pedicle transfixed, ligated, and dropped. The larger tumor, although free from abdominal adhesions, could not be drawn out, and it was found to be very tightly adherent to the uterus, which seemed to be one mass with it. As the fluid drawn from this tumor was clear, it is not improbable that it was a cyst of the broad ligament. It became necessary to enucleate the cyst, and a long, gaping wound was left in the broad ligament; this was transfixed and tied as a pedicle, but after the final division had been made, the ligature slipped and the hemorrhage was immense; ten hemostatic forceps were applied temporarily, and the bleeding points were firmly secured. The wound of the broad ligament was closed by ten interrupted sutures. The operation lasted two and a half hours; the patient collapsed, and he feared she would die on the table; but she reacted and recovery was uninterrupted; the patient sat up in two weeks. An incident, which occurred on the fourth day, shows the necessity of the proximity of a physician or thoughtful nurse. A scream from the patient—an announcement of a sudden pain on the right side—the patient said something seemed pulling inside of her; Dr. Baer was near and was called; he feared internal hemorrhage, but at once inquired how long it had been since she had passed water—four hours; the catheter was immediately used, and complete relief was secured. After this the catheter was not required until the tenth day; but from the tenth to the twentieth day there was entire inability to pass water, except by assistance of the catheter. She went home on the twenty-third day.

The points of special interest in this case are:

1. The patient being entirely well, symptoms of gonorrhœa presented themselves, and were followed by
2. Amenorrhœa for seven months, followed by
3. Daily hemorrhages for one and a half months.
4. Ovaritis and large tumors forming in eight and a half months from the initial symptoms.

Dr. Beates: A young lady was obliged to separate from her husband one month after marriage, in consequence of domestic trouble; her menses continued regular, but her abdomen enlarged as rapidly as if she were pregnant, her health failed, and at the expiration of nine months an ovarian tumor was removed; recovery was complete and rapid.

In another case he found numerous omental and enteric adhesions which were easily separated, but pelvic adhesions required enucleation of the cyst, which left a large V-shaped wound in the broad ligament, as described by Dr. Baer. Hemorrhage was very free; in trying to dissect off the tumor from the fundus of the uterus, that organ was badly wounded, the cavity was opened, and required to be closed by sutures. Great tympany followed this operation, and breathing became almost impossible; the patient recovered.

Calculi in the Female.

Dr. J. W. Snowden exhibited the stones and related the history of the case. He was called June 1, 1884, to see Mrs. L., aged 23 years. She was born and has resided in a limestone region in New York. Up to thirteen years of age she was troubled with eneuresis; wetting the bed almost nightly. After this she ceased passing her urine during sleep, but was obliged to rise for this purpose two or three times during the night. She could not retain her urine night or day after the desire to pass it came on. If she could not reach a convenient place, she would wet her clothes.

She married when seventeen years old. Two months after marriage she began to have cystic irritation, and soon passed sabulous matter and small calculi. These symptoms continuously increased. Physicians whom she consulted said she had catarrh of the bladder, but none made an examination for stone. Once she was obliged to call on a medical man to remove a calculus which had become impacted in the urethra.

Two years ago she spent a summer in New Jersey, during which time she passed no gravel, but the irritation of the bladder continued. When I first saw her she was urinating very frequently, with more or less pain. She passed stones daily, with a great deal of sabulous matter. The urine looked as if there was a quantity of ordinary sand in the bottom of the vessel. I proposed an examination for stone, which she refused peremptorily. I gave her benzoic acid, which entirely stopped the passage of the sabulous matter, and relieved her in every way; but she still occasionally passed a small calculus. This marked relief lasted two or three months, when the irritation of the bladder became worse than ever. She could only pass her urine in the erect position, and with as much effort as a woman in labor. I insisted upon an examination for stone, but the slightest touch excited such pain, even when she was well etherized, that being alone I could not manage her, and I sent for Dr. B. F. Baer in consultation.

A calculus measuring about one and a half inches in its largest diameter was found in the bladder, and removed by Dr. Baer after rapid dilatation of the urethra. This afforded marked relief, and she soon seemed entirely cured; but in a short time her urine began to dribble continually while she was in the recumbent position at night. During the day she retained and passed her urine naturally. I advised her to get up at stated intervals and empty her bladder, which has gradually relieved this trouble. She is now quite well, except that she urinates rather more frequently than is natural.

PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated meeting January 26, 1885. The president, Dr. S. Weir Mitchell, M. D., in the chair.

Dr. H. C. Wood presented to the Society

The Feet of an Ataxic Patient Illustrating Charcot's Joints.

The specimens were from the Mütter Museum of the College of Physicians, the feet of an ataxic patient that had been under his care at the University hospital. He expressed the opinion that there was a close relation between this disease of the bones in ataxic cases and syphilis.

A paper was read by invitation, on

The Spinal Arthropathies.

A clinical report of six cases of Charcot's joints, by A. Sidney Roberts, M. D., surgeon to the Philadelphia Hospital, instructor in orthopœdic surgery in the medical department of the University of Pennsylvania.

Case 1. M. K., male, æt. 41, referred to the New York Orthopœdic Dispensary from St. Luke's Hospital on May 5, 1879. Hereditary history unusually good. He is a moderate drinker. Health excellent until manifestation of present joint trouble. Married, and the father of five healthy children.

Condition on date of entry: A large nodular tumor was found over the left hip-joint, oval in shape, the long axis of which corresponds with line of Poupart's ligament. Transverse diameter of normal limb over hip-joint, 22 inches; of affected limb at same point, $30\frac{1}{4}$ inches. No muscular atrophy detected by measurements of circumference. Left limb $1\frac{3}{8}$ inches shorter than its fellow; measurements made from the umbilicus. External iliac fossa of left side filled with osteophytes, which add to bulk of tumor. The ligamentous structures about the joint seem entirely destroyed; motion of limb abnormally free in all directions. Head of femur probably absorbed or greatly atrophied. Limb abducted and rotated outward. What appears as the head of the femur is anterior to its normal position, lying under a "shed" of bone, built out from the pelvis, which covers its atrophied extremity like an umbrella. When the patient flexes the limb, the upper extremity of the femur glides forward until it catches under this shed of provisional bone, which, acting as a fulcrum, allows the patient to flex and rotate the limb with ease.

A thorough examination of the patient for evidence of a central lesion, revealed the absence of numbness of limbs, of pain, or of constricting bands; sensation slightly impaired on left side. On right side, reflex action increased on titillation of soles; none on left. No tendon reflex in either limb. Sways with "closed eyes test."

Condition eighteen months later: The patient presented all the marked symptoms of locomotor ataxia. Two years from date, upon which the above notes were recorded (May 5, 1879), he is confined to bed, with complete loss of muscular coördination.

Remarks.—The case exhibits an arthropathy existing four and a half years prior to the development of active tabetic symptoms, and shows a tendency, from early stages, to the formation of osteophytes about the joint, with early atrophy of the upper epiphysis of the femur.

At no time during the progress of the lesion were there developed reflex neural symptoms that would point to joint inflammation.

The joint lesion (swelling and tumefaction) diminished as the active symptoms of ataxia advanced. Provisional callus was thrown out about the atrophied extremity of the femur as a substitute for the destroyed acetabulum.

Case 2. Male, æt. 44. Registered as an outpatient in the New York Orthopœdic Dispensary on January 29, 1879. The following notes were recorded:

Hereditary History.—Parents living and healthy; one brother died of phthisis. Patient is married; has three children, two in excellent health, the third has an intra-pelvic abscess. (Subsequently died of amyloid degeneration of the kidneys.) Patient has had to work very hard, with considerable mental anxiety; no other known cause for present disease.

The left knee and ankle are enlarged, the latter more so relatively than the knee. The patient states that seven years ago, while working, a heavy box fell upon him, injuring the ankle. The joint became swollen, and he was "laid up for two months." He recovered, and suffered no inconvenience for one year; the swelling again returned in the same ankle and involved the entire leg. At this time he was incapacitated from work for three months; he recovered, and has had no active joint symptoms since. Has never had an abscess about the joint.

The urgent symptoms at present examination are those of locomotor ataxia. He cannot walk without staggering, and when attempting to do so in the dark, or with closed eyes, falls. Suffers from ataxic pains in the right leg and arm. Is uncertain in guiding his finger to the tip of his nose, with closed eyes, or in putting his heel on a designated spot. Sensation impaired in right hand and arm; has difficulty in buttoning his coat with that hand. When standing, or walking in his bare feet, he feels as though he were on cushions; vision unimpaired (eye-ground not examined).

On February 4, 1879, Dr. Cloves Adams saw the patient in consultation, and thought him to be suffering from locomotor ataxia in the third stage, with osseous changes in left ankle and synovitis of both knees.

The patient returned to the dispensary in September of the same year, with a marked elastic swelling of the right elbow-joint.

A year later (November, 1880), he was referred to the clinic of Dr. E. C. Seguin. He again applied to the Orthopœdic Dispensary on February 14, 1881. The ataxic symptoms had advanced; he walked with extreme difficulty. The condition of the joints remained about the same as when last examined, now four months ago.

During November (1881) the patient was critically examined by Dr. S. Weir Mitchell, and pronounced to be in the third stage of locomotor ataxia, with spinal arthropathies of the right elbow and left ankle-joints. It was noted that the circumference of the elbow tumor had materially diminished since the last measurements were recorded (decrease of two and a half inches).

Remarks.—The joint enlargements in this patient presented three characteristic peripheral ataxic conditions:

1st. At the knee-joint synovial irritation, indicated by the physical signs of a chronic synovitis; although at no time during its course was there evidence of inflammation.

2d. A characteristic doughy, nodular ataxic joint tumor of the elbow, largely composed of osteophytes and excessive synovial secretion.

3d. Hypertrophy of the lower epiphysis of the tibia and fibula, with but slight synovial irritation.

The peripheral manifestations at the knee and ankle, accompanied the earlier symptoms of ataxia; the elbow tumor entered abruptly upon the second stage of the sclerosis. I am indebted to my friend Dr. Newton M. Shaffer, of New York, for the privilege of reporting the above notes.

Case 3. J. H., male, æt. 45; was admitted to my ward in the Philadelphia Hospital on April 3, 1883. The following notes were recorded: A vigorous, well-nourished man, with little personal knowledge of his family or their history. Knew his parents lived to advanced age, but thought both of his brothers had died, and likewise two sisters, when young. Acknowledged to being strongly addicted to the use of alcohol. He thought his present trouble arose from a "dissipated life and constitutional syphilis."

Two years ago, after a debauch, his attention was directed to painful swelling of his right great toe. This lasted a few days, and as the pain and swelling of the toe subsided, the right ankle-joint enlarged. This swelling slowly and painlessly increased, and three months from its onset, the same condition appeared in the left ankle-joint. Without especial discomfort to the patient, this joint enlarged. He continued drinking to excess, and was admitted to the hospital in a state of chronic alcoholism.

An examination two weeks after admission, when all traces of alcoholism had subsided, gave evidence by the following facts of a central lesion: He had suffered from constricting pains about the abdomen, and occasional darting pain in the region of the hips and thighs, for the past year. He also experiences considerable difficulty in walking, especially at night. At present, he has a staggering gait. Absence of patellar reflex in both limbs: sways and falls with "closed eyes test," and has difficulty in finding tip of nose with forefinger when eyes are closed.

The metatarso-phalangeal articulation of the right great toe is ankylosed. Both ankle-joints are enlarged apparently by a diffuse hypertrophy of the epiphyses of tibia and fibula. This increase has almost doubled their normal circumference. The subcutaneous tissues are slightly œdematous. The capsules of ankle-joints are distended and elastic.

When first admitted, the tissues about the ankles and legs were swollen, presenting the appearance of diffuse cellulitis. This subsided in a few days from rest and local treatment.

My colleague, Dr. C. K. Mills, saw the patient with me in consultation. and confirmed the diagnosis I had made—of posterior spinal sclerosis, with accompanying arthropathies at ankle-joints.

Remarks.—The joint hypertrophy had preceded any active symptoms of ataxia. The character of the joint enlargement was that of bony hypertrophy, without a tendency to the formation of osteophytes or to a nodular irregularity of contour. The possibility of rheumatism or malignant disease was considered and dismissed. A thorough physical examination failed to detect any of the characteristic reflex neural symptoms of an epiphyseal osteitis.

The history of the progress and course of the ankle-joint hypertrophy, together with the evidence of a central lesion and the negative physical signs of local joint inflammation, all confirmed the diagnosis of an arthropathy of spinal origin.

(*To be continued.*)

EDITORIAL DEPARTMENT.

PERISCOPE.

A Case of Cholera, Illustrating the Successful Effect of Precautionary Measures in Preventing the Spread of the Disease.

Dr. C. David, of Geneva, thus writes in the *Brit. Med. Jour.*, Jan'y 31, 1885: Mrs. X., 30 years of age, very much affected by her coachman's sudden death from cholera, left Marseilles on July 25th last, with all her family, in order to escape from the epidemic. She had been troubled with some slight diarrhœa, and her medical attendant had advised her not to remain at Marseilles.

She arrived at Geneva on July 27th, and proceeded at once, with her husband, to try to find an empty house. Thus she came to Versoix (a village at the lake-side, on the west shore, about five miles from Geneva), exhibiting at the time no external signs of disease. After visiting an empty villa in that place, she took it, and went back to Geneva for the night.

On July 28th, in the afternoon, she returned to Versoix with her family, consisting of eleven persons; and the owner of the villa, finding her looks much altered since the previous day, advised her to send for me.

I saw Mrs. X. half an hour after her arrival. She was still wearing her travelling dress, and had gone upstairs into a bedroom she was destined never to leave. During my visit she had several rice-water evacuations, was seized with vomiting, and complained of abdominal pains and cramps in the legs; temperature of the body 36.4° C.; there was much emaciation; she had a small and rapid pulse. This had every appearance of a case of cholera. As soon as I had quieted the patient with reference to police-measures, with which she was afraid to be troubled, and I had assured her she would not be taken by force to the hospital, she acknowledged she had been ill the whole of the night and previous day: the fear of the police had prevented her, so far, from calling in medical aid.

Drs. Girod and Prevost were called in consultation, but the disease terminated fatally. The diarrhœa and vomiting ceased during the night of the 29th–30th; the temperature rose in succession to 38° and 39° C.; she was unable to overcome her state of emaciation and weakness, and she died on the 30th at 2 p. m. Her intellect had remained unimpaired until the last few hours, when she fell into a state of stupor. There had been no passage of urine since the 27th, in the evening.

This is, to my knowledge, the only uncontested case which has occurred in Switzerland. It might have become, according to the views generally entertained at present, the origin of an epidemic focus; fortunately this did not happen. The following were the measures adopted by myself and my colleagues to prevent such an occurrence, which, thanks to local circumstances, were easily carried out. The villa, situated between the two villages of Versoix, is limited on one side by the high road from Geneva to Lausanne, and on the opposite side by the lake. It is at a distance of at least twenty-five métres from any other dwelling, and is screened off from the neighboring houses and high road by a number of trees. In front of it is a meadow, reaching as far as the lake. The place is entirely surrounded by hedges and walls, which enclose it without a break. An avenue through a shrubbery for a distance of 100 métres leads to the house, and there is a gatekeeper's lodge where the avenue branches off from the high road.

The patient's room was on the first floor, had no access into the other rooms, and communicated with the stair through a narrow passage.

Under such conditions, the precautions to be taken were obvious, and easy to carry out. It was necessary, as far as possible, to protect the members of the family and the servants, and prevent absolutely any contact between the people in the villa and the inhabitants of the village. As soon as the nature of the case had been ascertained, I had all the useless objects and furniture removed from the room; next, at my request, the head of the family selected the persons who would have the care of the patient. These were Mr. X., a male servant, a lady companion, and myself. The others were strictly ordered not to enter the sick-room. The dirty linen found in the lady's trunk was immediately immersed in a solution of two per thousand of corrosive sublimate, and left there for several days. The fæcal evacuations and vomited matters were received in vessels containing some of this same solution. They were afterwards transferred to another vessel, where they remained till the evening, when they were buried at a distance of two hundred steps from the house, in the meadow adjoining the lake. A certain amount of five per cent. carbolic acid solution, and two per thousand corrosive sublimate solution, was at the disposal of those persons who were engaged with the patient, and they used them abundantly.

With reference to the intercourse with the village, the inhabitants of the villa were ordered not to go out of the grounds. The tradesmen delivered their goods at the gatekeeper's lodge, who transmitted them to the servants. The dwellers at the lodge were not allowed to enter the villa, and the tradespeople never passed the lodge.

Nobody but the physicians and a priest went in and out of the villa, and these persons never left without having washed themselves with a solution of corrosive sublimate, and being subjected to powerful chlorine-fumigations from chloride of lime, mixed with sulphuric acid. In order to be absolutely correct, it should be stated that a young girl, with less discipline than wisdom, who had been engaged on the first day by Mr. X., made her escape from the villa during the night to sleep at her mother's, who lived in an isolated house; she returned the next morning, and did not go out again.

A sick-nurse, engaged on the 29th, and the mother and brother of the patient, arrived from Paris on the 30th, and were admitted into the house, after having been warned that they would not be allowed to go out.

Death having taken place on the 30th, at two o'clock, the physician at the head of the sanitary department of the Geneva Government, Dr. Vincent, was informed of the occurrence by telegraph, and ordered the body to be buried at once; this was done at seven o'clock in the evening, allowing barely time to procure a coffin and dig out a pit.

The body, enveloped in the clothes and portions of the bedding which had been in contact with it, was watered with disinfectants, placed in an oak coffin, and carried to the cemetery in a funeral carriage. All the other objects which had been used during the patient's illness—bedding, crockery, curtains, linen—were watered with disinfectants, buried in a second pit, and covered with quicklime. All this was done under direct medical supervision.

After the body had been taken away, the room which the patient had occupied was thoroughly fumigated with chlorine. Moreover, several litres of carbolic acid were thrown into the privies. The next day, Dr. Vincent proceeded to disinfect minutely the furniture with several "siphons" of liquid sulphurous acid, according to Raoul Pictet's process; and, somewhat later, the walls were washed with a five per cent. solution of carbolic acid. All the dirty clothes of the family were immersed for several hours in a bath of carbolic acid before being sent to the wash.

In accordance with an order from Dr. Castella, sent by the Federal Council, the family were not allowed out of the villa until August 9th, or ten days after the lady's death. As by that time no other case of cholera had occurred, either in or outside the house, the inmates were at last set at liberty.

Such were the measures taken to prevent the extension of the disease. I have no more to do than to wish for my brethren cases where precautionary measures are so obvious as to their nature, and so easy to carry out.

Dr. Marcet says: I happened to be staying close to the village of Versoix this summer, when the case, so well managed by Dr. David, took place. This village consists of two rows of houses, with the high road between them. It is a singular fact that Napoleon the 1st had intended to make Versoix into a large town, and had constructed a spacious harbor for it, but his views in this re-

spect were never carried out. The village remains divided into two portions along the lake, which were clearly intended to have been joined, and form the nucleus of the town. It is certainly not a clean village, and there are abundance of smells in the houses and shops; no doubt, the pabulum was there for an epidemic of cholera, if an opportunity offered. It cannot, therefore, be said that external circumstances were unfavorable to the disease spreading; and most probably, but for Dr. David's prompt and energetic measures, the disease would have broken out in the village.

I have a case in point, illustrating the effect of the neglect of precautionary measures towards checking the spread of cholera.

In October, 1866, I happened to be staying near the village of Nirnier, of perhaps five or six hundred inhabitants, situated on the Savoy Coast of the lake of Geneva. One evening I remained some time in conversation with a man I was employing, and who appeared to me then in perfect health. This man, after leaving me, went to sleep at Nirnier. Next morning I was informed that he was very ill, and I went to Nirnier to see him. I found him in a state of collapse, and it was at once clear to me that he had cholera; he died that same day about five o'clock. The story told at the time, and in which I believe, although I cannot find confirmation now, was that the man had eaten supper that same evening in company with a person who had left Marseilles on account of the cholera, and that this person had gone away early the following morning, without leaving any trace of his whereabouts.

I warned the mayor of the village at the time, and tried to convince him of the importance of removing the dunghills in the streets, whitewashing the houses, and using chloride of lime abundantly, but my warning was of no avail. There spread at once a report that the man had died poisoned by an overdose of certain pills he was then taking, and not of cholera. Two or three days later, an epidemic of cholera broke out in the village, and within about three weeks there were eleven fatal cases. The epidemic then suddenly ceased.

I made inquiries last summer at Nirnier, with reference to the cholera of 1866. Many have a very distinct recollection of it, and I obtained minute details from some women, such as the names of those who had died. The history of the epidemic having been imported from Marseilles is, however, ignored or disbelieved; and, unfortunately, the people who kept the public-house where my man had had supper after leaving me, are either dead or have disappeared. It is believed to this very day at Nirnier that the person stated as suffering from cholera died of poison, and nobody knows, or seems to care to know, how the cholera had been introduced.

Notes on the Effects of Very Powerful Electric Currents.

Dr. G. F. De Schweinitz thus writes in the *Therapeutic Gazette*, January 15, 1885:

The following report is intended to briefly place upon record the history and symptoms of two men who were prostrated by excessive charges of electricity, received from the apparatus at present in vogue for electrical illumination by means of the arc-light. The first case occurred in a man, aged about twenty-four years, who was admitted to Prof. H. C. Wood's wards, in the University Hospital, shortly after the accident, which happened as follows: This workman was walking through one of the departments of a large car manufactory in this city, carrying over his right shoulder a long iron bar, which also rested lightly against the side of his head. The upper end of this implement became entangled in the wires connecting the dynamo with the carbons, thus placing the man within the circuit, when, to use the expression of his comrades who witnessed the result, he was felled to the ground "as if struck by lightning." His fellow-workmen hurried to his assistance, found him entirely unconscious, and, having conveyed him to a neighboring room, sent a request for his admission to the hospital. When the reporter of these notes arrived, about a half an hour after the accident, he found the patient perfectly insensible and oblivious to all external impressions, face and skin surface natural, pupil normal and sensitive, pulse full, and rather slow, respirations somewhat labored, rather deep and the rate below normal, being ten or twelve per minute. The coma, pulse, respiration, were not unlike the beginning of the second stage of opium narcosis. No attempt at restoration was immediately made, but he was conveyed to the hospital and taken in charge by Dr. W. W. Jaggard, the then medical interne of that institution. After being sharply shaken and shouted at a few times, he slowly opened his eyes, his face assumed a bewildered expression, and he answered questions in a dazed sort of a manner. His temperature was normal, his pulse, perhaps, a little more rapid; his respiration, when he remained quiet, was slow. He complained of no pain, but only of a certain amount of disability in the motions of the right arm and leg. After drinking a cup of milk he fell into a quiet sleep, from which he did not awake until the following morning, the time being then a little after midnight. In the morning no evil effects from his accident were noted, except some muscular disability of the right side. He asked for his discharge, which was granted, and he passed from observation.

The second case also came under the notice of the reporter, and occurred during August of this summer in the large Bessemer works in a neighboring town. This mill is illuminated with Weston's duplex lamp, the dynamos being of the same make, five dynamos to fifty lights. A description of the accident cannot, perhaps, be more accurately given than in the words of the gentleman who experienced it:

"On a wet, rainy night, in an open shed, I received a slight shock when using one hand, protected by a cotton handkerchief, in adjusting the lamp. I received the final shock in trying to remove the lower carbon, using both hands again, supposed to be insulated by a double wrapping of cotton handkerchief, the one hand holding the carbon, and the other slacking off the adjusting set-screw. Now for my sensations: It seemed to me as if there was an instantaneous bright flash, which may have been due to the sudden change from light to so absolute a darkness that it appeared to have body. The next sensation, after ap-

preciating this inky darkness, was that of trying to tear myself away from something that held a terrible grip upon me. My hands seemed to hold on while my body was trying to get away, every nerve and muscle being strained to its utmost. My next impression was, when I opened my eyes and found I was lying upon my back, perfectly straight, but in exactly the opposite position to the one assumed when I was standing, showing that I had been completely turned around. One carbon was found about ten feet away from my one side, and the socket which holds the lower carbon about the same distance away from my other side. This I had torn out of the lamp. Above me the lamp was swinging violently. The whole time from the moment the current struck me until I picked myself up was less than three minutes."

When seen, this gentleman complained of no evil after-effects, except a great feeling of muscular soreness, produced, no doubt, in part by the number of bruises and brush burns which covered his thigh and back, showing how violently he had been thrown upon the ground.

The Treatment of Phthisis.

Dr. F. P. Atkinson thus writes in the *Edinburgh Medical Journal*, February, 1885:

No one, I think, can question the fact, that the treatment of phthisis has undergone a marked change for the better during the last twenty or thirty years. The cause of the disease is now more considered than the symptoms—specific treatment is abandoned—and residence is recommended in those climates which are most likely to increase the appetite, improve the character of the blood, and promote a healthy interchange of tissue.

Even during the continuance of winter, so long as the wind is in the south or west, gentle out-of-door exercise is preferred to confinement in-doors, and in many cases the dry, cold, bracing air of the Engadine to the warm, relaxing air of the Riviera. There can be no doubt that it would be a great advantage were all persons suffering from phthisis able to be treated in the climates most suitable to their particular case; but this, from various causes, is impossible, and we have to see what means we have at command for bringing about that improvement in health which is necessary in order to effect a cure.

First, then, I would say, it appears to me of little or no consequence what form of phthisis we are called upon to treat, and that the following remedies will be found suitable, with slight alteration, to all stages of the disease. Give syrup of the lacto-phosphate of lime and iron 1 drachm (concent.); tincture of nux vomica 5 minims; tincture of calumba 15 or 20 minims, with a little essence of lemon and water to the ounce, three times a day. A teaspoonful of pancreatic emulsion carefully mixed with water, or a teaspoonful of Lœflund's condensed cream emulsion, or half a pint of koumiss once or twice a day. If the appetite is bad to start with, keep the patient well supported wth Brand's essence of beef, or, better still, Valentine's meat juice, and milk; and if stimulant is necessary, give half a sherry glassful of St. Raphael wine twice a day. Paint the chest morning and evening with tincture of iodine till sore, then omit for a time, and afterwards commence the painting again. If there is much sweating at night, inject a hundredth part of a grain of atropia subcutaneously, or, especially if the cough is very troublesome, give 10 grains of Dover's powder at bedtime. In the commencement of an acute attack, or when any outburst of pyrexia occurs, it may be necessary to give large doses of quinine and digitalis (as much, for instance, as two grains of the former, and 5 or 7 minims of the tincture every two hours) in order to bring down the temperature; but still it must be remembered that treatment to be successful must be directed towards a general increase of nutrition. This holds good whether phthisis be proved to be due to germs or not. If there is much hæmoptysis, give either some hazeline or acetate of lead and opium. When vomiting has been a very urgent symptom, I have now and then found Dr. Hughes Bennett's treatment of great service, viz., 10 minims of medicinal naphtha, 1 drachm of the compound tincture of cardamoms and camphor mixture to the ounce, to be taken every four hours.

In most cases I have been able to get on very well without inhalations, but have no doubt they might here and there—such as, for instance, where there are very large cavities—prove of very great service. It is astonishing how many really bad cases improve under the above method of treatment; but it is, unfortunately, not altogether suited to the poor on account of the expense which it involves; yet even they, with continued use of the lacto-phosphates, not unfrequently undergo very material improvement. I consider the lacto-phosphates in every way preferable to the hypophosphites, and there can be no doubt we are deeply indebted to Dr. Dusart for such useful and extremely pleasant remedies. As he says, "they act as excitants of all the nutritive functions, ensure digestion, bring back or increase the appetite, and generally improve the vital energies."

A Case of Gastric Ulcer.

Dr. Osman B. Campbell reports the following case in the *College and Clinical Record*, January 1, 1885:

"I was called, on March 15, 1884, to see Miss R., aged twenty-two, who was suffering with gastric pain; she had had two attacks of hæmatemesis, and was considerably prostrated, from pain and inability to digest a sufficient quantity of food. I found that her trouble dated back four months, when she had had an attack of intermittent fever. Quinia and calomel were given, which broke up the fever, but she did not regain her health. She complained of a feeling of weight and soreness in the right side, near the region of the liver; her abdomen enlarged considerably, so that her clothes had to be widened to the extent of three or four inches; she was constipated, and had throbbing sensations about the umbilicus. She was jaundiced, and had frequent attacks of vomiting, when the contents of the stomach would be ejected, followed by bile. These conditions continued about two months and a half, when, upon vomiting, some black, partially digested blood was ejected. She noticed the same

day that her stools were black and tarry. From that time the taking of food would cause gastralgia and vomiting about twenty minutes after eating.

"Six weeks later, she came under my observation. I found considerable enlargement of the liver and spleen, some bloating of the abdomen, gastralgia and vomiting, excited by taking food. She had just vomited some blood, which I found to be partially digested. She complained of a fixed pain immediately under the ensiform appendix, extending through to the spine. I diagnosticated the case as a gastric ulcer, a result of portal congestion. I restricted her diet to skim milk, diluted with one-fourth lime-water, from three to four ounces to be given every three hours, and gave a purge of calomel, to relieve the portal circulation. I prescribed five-drop doses of liquor potassii arsenitis, three times a day, and gave twenty grains of quinia during the twenty-four hours.

"My patient began to improve immediately; there was no more gastralgia nor vomiting; nor was there any appearance of blood in the stools. Six months after I began treating the case all signs of the disease had vanished. The cause of the ulcer was, I believe, portal congestion, caused by malaria."

Note on Complete Aspiration.

Dr. David Christie thus writes in the *Med. Press*, January 28, 1885:

For some years past there has been much written regarding the use of the aspirator in cases of pleuritic effusion, and the talent displayed on this subject is creditable to the medical profession; but in using the aspirator, there has been one thing omitted that mars or nearly destroys its utility. I have waited more than two years for some one to find it out, but, strange to say, in vain.

The thing is as simple as making an egg stand on its end *when you know it*, and the only mystery about it is that no one seems to have thought of it. I have tried the partial aspiration as it is usually performed, and find that the pleural cavity refills in a short time; after complete aspiration it does not. The way it is managed is very safe and simple. I put a broad bandage round the chest that can be laced behind like a corset; then, as I pump the fluid *out*, I press the ribs *in* by tightening the bandage. I think when I do so it is unnecessary for me to explain that I prevent any internal organ from being displaced (at the same time keeping them at a proper pressure), and the ribs by their elasticity from acting as a suction-pump to cause a re-accumulation of fluid. I allow the bandage to remain on for some days. Any one who understands the action of a pump and a siphon requires no further explanation. Many imagine they do, but are mistaken; these I would advise to consult "Ganot's Physics." After a certain amount of fluid has escaped, dragging pains set in. Tightening the bandage instantly gives relief. Alternate aspirating and lacing should be continued until all is removed; then there is likely to be a fit of spasmodic coughing; the patient may spit some frothy mucus tinged with blood, but all such symptoms pass off in a few minutes, and do not return—at least that has been my experience.

I may add that the needle should be put in at such an angle that, after piercing the costal pleura, the point can be made to touch it again, so that when the pleuræ approach each other the lung may not be wounded; and when necessary, the pleural cavity should be made antiseptically clean.

The Management of Patients During Etherization.

Dr. H. L. Burrell thus concludes a paper on this subject in the *Boston Med. and Surg. Jour.*, January 29, 1885:

1. Before etherization, the surgeon should satisfy himself regarding the presence or absence of heart disease.

2. The safety of the patient and the comfort of the etherizer largely depend on the use of pure anhydrous sulphuric ether.

3. The best medium for the administration is one in which the ether can be given in a condensed form or largely mixed with air.

4. As a rule, the patient should have a brief, clear description of the sensations he is about to experience.

5. A room free from bustle and confusion before and after an operative procedure is an essential for quiet etherization.

6. Ether should be administered on an empty stomach.

7. The knowledge of the effect of a glass of wine upon a patient is frequently an indication of the exciting or stupefying effect that ether may have.

8. No mechanical impediment should exist to respiration.

9. The pulse and respiration are the safeguards of etherization.

10. The less ether used in an operative proceedure, the better the recovery of the patient from the immediate effects of the operation.

11. A little ether in children goes a long way.

Remaining, we have a number of questions on which, possibly, there is difference of opinion. The following suggest themselves to my mind:

The comparative value of the different brands of ether?

Whether it is better to pull the tongue forward or to push the jaw forward?

Whether any patient exists that cannot be etherized?

The comparative values of a sponge, towels, and inhalers?

The use of opiates and stimulants as adjuncts to etherization.

—The *Medical Herald*, January, 1885, tells us that the prize of 40,000 francs offered by the French Academy for some certain test of death, to prevent people from being buried alive, was given to a physician who announced that on holding the hand of the supposed dead person to a strong light, if living a scarlet tinge is seen where the fingers touch, showing a continuous circulation of the blood, no scarlet being seen if dead.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. Harrison Allen, of this city, in a reprint before us, describes a new method of recording the motions of the soft palate, especially with reference to the medical uses to which the method can be applied. The plan he describes is both ingenious and successful, and as he suggests may prove to have applications in other branches of science besides medicine.

——In a valuable paper on our table Dr. C. H. Hughes, of St. Louis, discourses wisely of such important topics as the Hygiene of the Nervous System and Mind; The Relation of the Nervous System to Cholera and its Prophylaxis and Neurotherapy; The Cure and Prevention of Dyspepsia as a Nervous Disease; The Neuropathic Diathesis—its Quarantine and Treatment.

——The *Transactions* of the American Dermatological Association at its eighth annual meeting makes a neat pamphlet of 26 pages. Abstracts of the papers read are given and a number of typical cases are described. The report is prepared by Dr. W. T. Alexander, of New York city.

——Dr. John V. Shoemaker's researches on the oleates in the treatment of skin diseases have been translated into German by the *Monatshefte für Praktische Dermatologie.*

——Under the title "One Hundred Years of Publishing," the house of Lea Brothers & Co. rehearse in a well-printed pamphlet the history of their firm and its antecedents since it was started in the year 1785. There are few firms in America who can point to such a record.

——A valuable report on the diseases of the ear in locomotive and other engineers, firemen and conductors, which may endanger the lives of the public, appears in pamphlet form from the proceedings of the American Medical Association, by Dr. Laurence Turnbull. It is an original study, and contains many interesting statistics.

——Dr. P. B. Porter will hereafter edit *Gaillard's Medical Journal*, and will have for collaborators Drs. T. Gaillard Thomas and George T. Harrison, of New York; Hunter McGuire, of Richmond, Va.; and C. H. Mastin, of Mobile.

BOOK NOTICES.

A System of Practical Medicine. By American Authors. Edited by William Pepper, M. D., LL. D., etc., assisted by Louis Starr, M. D. Vol. I., Pathology and General Diseases. 8vo., pp. 1094. Lea Brothers & Co., Philadelphia, 1885.

There are certain elements of novelty about the extensive undertaking which is commenced with this volume which cannot fail to recommend it to to the medical public. It is intended to be a study of the diseases which occur in American life, from the experience of American practitioners and teachers exclusively. This experience is to be obtained, not by culling here and there from the publications of the American profession, but by a series of monographs prepared by the most eminent American physicians on topics of their own choosing, and hence those in which they are most interested. Certainly no other plan could be suggested by which the reader could be secured a higher order of literary and scientific merit. In this design, we should add, the word "American" means Canada and the United States.

This first volume of the work is occupied with pathology and general diseases. The introductory essays are on General Morbid Processes, by Dr. R. H. Fitz; General Etiology and Diagnosis, Dr. Henry Hartshorne; Hygiene, by Dr. John S. Billings; and Drainage and Sewerage in their Hygienic Relations, by Mr. George E. Waring.

Following these articles of a general nature, the maladies are described which in the nosology of the Royal College of Physicians are classed as "General Diseases," such as typhoid and typhus fevers, variola, rubeola, diphtheria, cholera, pertussis, influenza, etc. The principal writers in this department are Drs. J. H. Hutchinson, James N. Hyde, W. A. Hardaway, Alfred Stillé, John M. Keating, James Law, A. Jacobi, J. Lewis Smith, etc. In all, there are twenty-one contributors to the volume, thus presenting a wide range of observation from a most competent body of observers. The result is a series of monographs representing the very best efforts of American medicine.

The scope of the work is intended to be extensive. It will embrace hygiene, gynecology, the diseases of the male sexual organs, diseases of the rectum, etc., which are frequently omitted or else inadequately treated in many works on practice.

The book is handsomely printed in clear type, with a sufficient number of illustrations.

—Mrs. Philander Peck, of Chicago, has recently left a legacy of $400,000 for the erection and support of a Home for Incurables in that city.

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THE INCREASING ADULTERATION OF MEDICINES.

The increased adulteration of drugs has lately attracted the earnest attention of health boards. Such adulteration is greatly facilitated by the custom now so widely established, of dispensing medicines already combined in various forms by wholesale drug manufacturing houses. Pills, elixirs, troches, suppositories, tablets, wafers, and we know not how many forms, are no longer put up by the retail druggist, but are manufactured in quantities at large establishments, and the retailer merely aids in distributing them.

Hence, an important check on the fidelity with which the drug is compounded is removed to a distance from the physician. If the remedy does not answer his expectations, he cannot visit the drug store and verify the accuracy with which his prescription was prepared.

What is his remedy?

He cannot himself make analyses of these preparations. Such analyses are delicate, time-consuming, and difficult.

His only remedy appears to be in insisting on the preparations of trustworthy houses, of high repute, who by energy, skill and honesty have gained a reputation which it will not pay them to risk by placing on the market merchandise inferior in quality or diminished in quantity.

How is he to learn of such houses?

Perhaps the advertising pages of the highest class medical journals will offer the readiest means. As a rule, manufacturing druggists who do not advertise in these channels are either weak financially, and hence have a strong temptation to adulterate their goods; or their goods are of such questionable character that they seek to avoid publicity and checks of medical journalism, and introduce them by distributing private circulars, in which any statement can be made and not questioned, or else by traveling drummers, who are equally uncontrolled in their statements.

In fact, the physician may be pretty sure that the firms whose advertisements do not appear in any of the five or six principal medical journals, are absent for good reasons; and it would be as

well for him to discredit the statements of all houses who profess to prefer other means of reaching the profession—they do so for reasons which, as a general thing, they would not be willing to acknowledge.

Notes and Comments.

Twenty-five Cases of Abdominal Section.

Dr. J. Greig Smith reports the following cases in the *Lancet*, Jan'y 19, 1885. They are as follows: Ovarian cystoma, 17; solid growths of ovaries, 2; pyosalpinx, 2; hæmosalpinx, 1; exploratory, 3. A prolapsed, adherent, and diseased ovary successfully removed through the vagina is not included.

Among cases of cystic disease is included one where the tumor was mixed dermoid and cystic. In three cases the second ovaries were large enough to be reckoned as separate tumors; in five more the second ovary was removed because of incipient disease.

Of the cases of solid growth, one was a pure fibroma of the ovary, measuring seven by eight inches in its diameters; in the other not only were both ovaries changed into solid growths, each about a pound in weight, but both Fallopian tubes were distended with a fluid fatty material, crowded with crystals of cholesterine.

One of the cases of pyosalpinx was the worst of the series. The patient had been very ill for two months; and when seen was in a low typhoid condition, with high evening temperature (103°) and rapid pulse (120). She had also chronic bronchitis, with constant cough, and some fluid in the right pleura. The tumor was very thick-walled, rotten, almost gangrenous in parts, and, it need scarcely be added, adherent all over, more particularly to the bladder, uterus, and rectum. It contained about eight pints of highly offensive pus. There was free bleeding from innumerable points, which was checked by pressure of sponges. Part of the cyst wall, firmly adherent over the iliac vessels, was surrounded with a ligature and left behind. The operation had to be hurriedly concluded (within the hour), as the patient was near dying on the table. The treatment adopted was the following: Nutrient peptonized enemata, drainage, and daily syringing of the abdomen so long as the discharges continued putrid. The ligatured portion came away through the wound as a slough, large enough to fill a three-ounce bottle. The patient recovered and went home, but now, eight months since the operation, there exists a sinus in the abdominal parietes, which is gradually closing.

Of the exploratory operations in one case the tumor was found to be malignant, and to have invaded the peritoneum; the patient went home after a month, and lived for nearly a year. A second was found to be encysted peritonitis from miliary tuberculosis. She recovered well from the operation, and died in nine months of her disease. The third was found, as was suspected, to be one of movable kidney, which was fixed.

Of these cases all recovered save one, and here the cause of death was volvulus. The patient was a broken-down woman of fifty-three, a cripple, with her joints all distorted from chronic rheumatic arthritis. The operation was not peculiarly difficult, and she appeared to be out of danger, when, on the fifth day, violent vomiting set in, which became stercoraceous in the end, and killed her in twenty-four hours. At the post-mortem examination a kink in the bowel, which was very dark and congested for a foot of its length above it, explained what, perhaps, ought to have been diagnosed during life. The rapidity with which she succumbed was easily explained by her general feebleness.

In all these cases Listerism was observed in its fullest details, even to catgut (with two or three exceptions) for the pedicle.

The operations are done in the general operating theatre, and no restriction whatever is put on students or visitors who may care to be present. For a week or ten days after operation the patient is kept isolated in a small ward; thereafter she is returned to the general ward. He adds that the infirmary building is a century old, that it stands in a low-lying, poor neighborhood, and that its wards, affording less than eight hundred cubic feet to each patient, are always full, often overcrowded.

Hydrocele in the Female.

Hennig, of Leipsic, read a paper on this subject before the Society of German Naturalists and Physicians, in Magdeburg.

Hydrocele in the female, he said, was very rare; he has been able to find only thirty-nine cases recorded in literature, and had two cases in his own practice. Apart from their interest to the gynecologist, these cases merit the attention of accoucheurs, as hydrocele may render delivery very difficult, or even impossible; furthermore, the exudation, by passing up the inguinal canal

into the abdomen, during labor, may cause peritonitis; three instances of this accident are recorded. It may also cause sterility; a case is reported in which sterility of fourteen years' standing was cured by removal of the hydrocele. Zuckerkandl made post-mortem examinations of the bodies of nineteen young girls, the ages ranging from one to twelve years; in four cases he found the so-called Nuck's diverticulum, bilateral in three cases. If the hydrocele communicates with the abdominal cavity, the contents may be forced out into the cavity. In many cases small sacs are found in the course of the round ligaments; they are liable to occur after traumatism, and to become inflamed.

Hydrocele occurs from the seventh to the seventieth year, and is more frequent in women who have borne children than in nulliparæ. In 8 cases it was on the right side, in 6 on the left, in 2 it was bilateral. Of 40 cases, the hydrocele completely filled the canal in 25; of these, 3 did not communicate with the abdominal cavity, and 15 were closed cysts. In 5 cases the fluid was bloody.

The affection begins painlessly. At first the swelling is slight, and disappears on lying down. Though there is seldom any fever at first, it comes on when the hydrocele becomes inflamed, which may occur from excessive tension. Erysipelas has also been observed before an operation. Hydrocele in the female has been mistaken for hernia; the diagnosis can be easily made in some cases by the use of the aspirator needle. The hydrocele has been known to suppurate in a few cases, but the suppuration has never extended to the abdomen. Of 28 cases of hydrocele, 23 were cured, and the hydrocele returned in 5 cases. The treatment consists at first in placing a bandage over the sac, and later in making an incision and filling the sac with charpie.—*Centralbl. für Gynäk.*, October 11, 1884.

The Hereditary Transmission of Pulmonary Consumption.

This is a most interesting question, and one about which there is much less unanimity of opinion than we found some years since. Dr. John L. Davis publishes a paper on the subject in the *Cinn. Lan. and Clinic*, January 24, 1885, based upon an analysis of one thousand cases in which reliable family histories were given. He thus concludes:

In concluding the subject of the family predisposition to consumption it is proper to state that the results of the analyses of these one thousand cases lead me to differ decidedly from the opinion of Walshe (*Med. and Chir. Review*, vol. iii.): "Phthisis in the adult hospital population is, to a slight degree only, a disease demonstrably derived from the parents." And my results differ also from those of the directors of the Mutual Life of New York, who declare "The existence of an hereditary tendency to consumption has been generally asserted and believed, but has not been proved; our statistics afford the proof. They show that heredity only occurs in a minority of instances."

Finally, I will briefly relate the history of one family which has come under my personal observation; a record that illustrates a most remarkable hereditary transmission of consumption.

Mr. John T., of Ross county, Ohio, had by his first wife twelve children; the wife died of consumption, and Mr. T. married again and had eight children, and they are all living and neither they nor their descendants have as yet shown a single instance of consumption. But of the twelve children of the first wife, three died early and left no posterity. The remaining nine had children, but these all died of consumption before middle age, except the children of two of the nine. Of these two children of John T., one, a daughter, died of consumption after having had twelve children; of these (third generation), four died as infants; three adults have died of consumption, and three more are now suffering with the disease.

The other survivor was the eldest son of John T., Henry by name. Henry T.'s first wife was phthisical; she had eight children, but they all and she died of consumption.

The second wife also was consumptive; of her nine children, eight, with their mother, died of this disease.

A third wife of Henry T. had five children, but they all died in early manhood of consumption, and their mother soon followed them.

Henry T. married a fourth time, but died soon after of phthisis, leaving no children by his last wife.

This history, which is absolutely trustworthy, illustrates the remarkably hereditary character of pulmonary consumption.

The Uses of Sulphide of Calcium.

Before the West London Medico-Chirurgical Society (*Med. Press*, January 7, 1885), Mr. R. F. Benham read a paper on this subject, in which he remarked that in his opinion very many of the failures in the use of this drug were due to too sparing administration. Dr. Ringer drew the at-

tention of the profession to this drug in a paper in vol. i., *Lancet*, 1874, in which he stated that sulphide of calcium possessed the power of arresting and preventing suppuration in such cases as boils, carbuncles, scrofulous and glandular enlargements, and in many skin diseases. After reading many cases treated by various practitioners, the author remarked on the number of unsuccessful cases, and said the quantity given had been too small. A $\frac{1}{6}$-grain dose might cure in one case, but not necessarily in another. He regarded the appropriate dose for an adult to be one grain in pill "ter die," but if after, say a week, no improvement occurred, he made an increase of one grain per diem, or every few days, until about eight grains daily were reached. The dose which had hitherto been regarded as poisonous, he found did not produce alarming toxic symptoms; secondly, only a small quantity of the drug taken is decomposed in the alimentary canal to form H_2S; and last, but not least, from the ordinary dose he did not find anæmia produced, but on the contrary, even where six or eight grains daily were given, general improvement in health resulted even when the drug failed in curing the symptoms for which it had been administered. The author maintained that the physiological action of the drug is not due to its conversion into H_2S in the organism; it could not be that only a small portion is absorbed and the remainder passed off unchanged—for if so, why should a large dose effect a cure when a small one failed? The author preferred giving the drug in pill, as by this means the taste is unobserved. Mr. Benham read notes of a series of a large number of cases treated with success, and also recommended the drug in phthisis, typhoid, and small-pox.

The President, Mr. Frederick Laurance, had found the drug cause intestinal derangement; he had found it useful in gum-boil. Dr. James Thompson found one-tenth grain the safest dose to begin with. Mr. Maitland Thompson had not found it useful in strumous glandular affections.

The Power of Imagination.

Before reporting the following case which Dr. George C. Kingsbury records in the *Brit. Med. Jour.*, Feb'y 7, 1885, let us say that it looks very much like another illustration of the "*Power of Imagination.*" He says: "A few days ago, I was called in to see a female patient, aged 32, who was suffering great pain from an ulcer over the right tibia. The ulcer communicated with some superficial necrosis of the bone, but the patient had refused the surgical aid of several other practitioners, and now rejected mine also. In order to give her temporary relief, I ordered her to take half a grain of codeia, and to have a linseed-meal poultice applied over the ulcer. She strongly objected to the poultice, saying that, for the last four years, she had had an attack of asthma each time a linseed-poultice had been used. Not crediting this, I insisted on the poultice being put on. Three hours later, I was summoned to see her, as her sister thought she was dying. I found her livid and struggling for breath, and certainly in as bad an attack of asthma as I ever saw. The offending poultice was removed, and the attack gradually subsided. This patient is not troubled by any other kind of poultice; in fact, she is really fond of oatmeal in this form. I have tried whether the dust of dry linseed-meal would induce an attack, but with negative results. If, however, a linseed-poultice be made near her, even though not for her use, she is at once threatened by a feeling of constriction of her chest. Another curious sequence in this case was the appearance of urticaria on the back, chest, and arms, and of a crop of herpes where the poultice had been.

"As exciting causes of asthma, the dust of ipecacuanha, flax, scammony, oats, have all been known. Trousseau relates the case of a chemist who could not powder linseed without having a fit of asthma. In this case, however, the dust had no injurious effect; and I fancy the asthma was produced by the smell given off with the steam of the poultice."

Round-Celled Sarcoma.

Dr. A. C. Lamothe Ramsay thus writes in the *Northwestern Lancet*, February 15, 1885:

Round-celled sarcoma is a much rarer affection than is generally supposed; its favorite seat is the periosteum of the bones and the connective tissue, and it is very seldom observed in the integument, which is the favorite location of epithelioma. The diagnosis is only confirmed by a thorough microscopic examination of a hardened section stained with carmine. To the naked eye the tumor has the appearance of a soft, whitish, non-vascular growth, of longer duration than epithelioma, less vascular, less painful, less malignant; for it is propagated only by extension into the neighboring tissues, and not by metastasis, as epithelioma. The sarcoma tends to grow—it is a hyperplasia; the epithelioma tends to destroy, producing necrosis by pressure of the stroma on the surrounding connective tissues.

The epithelioma also spreads in the parenchyma

by projection of the epithelium through the blood and lymph-vessels; the round-celled sarcomas have their vessels intact, even enlarged.

My case was in a heretofore healthy Pole, aged forty, who for the last three years has had growth on his right thumb, which increased slowly and steadily. When I saw him it was larger than a silver dollar and almost encircled the thumb, being situated over the phalangeal articulation, and having a slightly red and indurated base.

It is useless to add that the only treatment was amputation, which was performed at the carpo-metacarpal articulation. As to the question of recurrence after extirpation, I think it less liable to recur than the simple epithelioma, both because the lymphatic glands are very rarely affected in round-celled sarcoma, and on account of the absence of spindle-shaped cells.

Xanthelasma.

Of this unusual affection, Dr. W. S. Thorne thus writes in the *Pacific Med. and Surg. Jour.*, February, 1885:

This somewhat rare affection of the skin, was first described by Monsieur Rayer, of Paris, under the name of *Plaques Jaunatres des paupières*. William, and after him, Addison and Gull, describe this affection under the nomenclature of Vitiligo. Most writers ascribe it to an apparent relationship to some liver affection, or to diabetes. In four autopsies of xanthoinic patients reported by Murchison, Moxon, Fogge and Pye Smith, hepatic disease was found in all. I have recently had the opportunity of observing for two years or more a patient suffering with this unpleasant deformity, in whom no trace of hepatic or any other disease is manifest. The patient, a female, is 38 years of age. The spots began upon both superior lids seven years ago simultaneously, as small yellow maculæ. They now involve nearly the entire surface of the lids. There are a few detached patches upon the lower lids, and at the outer canthus of each eye. The spots are elevated, slightly tuberculated, and in color that of a clean, new chamois skin (Naples Yellow). There is no unusual sensation in them, save an occasional itching; their area is slowly increasing. The minute anatomy of this morbid growth reveals hypertrophy of the connective tissue with localized fatty deposits. The connective tissue corpuscles are greatly increased and are of a yellow color. As my patient is extremely fair and the skin otherwise free from maculæ of any kind, it would seem that the affection of the lids is fairly attributable to perverted local nutrition, and not to hepatic derangement. It is, perhaps, due to that peculiar habit of body wherein the method of *forming* and *nourishing* tissues is faulty, the only visible evidence in this patient of *struma*.

Cocaine in Minor Surgery.

Dr. Irving D. Wiltnut contributes to the literature of this drug by writing as follows in the *Northwestern Lancet*, February 15, 1885:

I proposed to extirpate a fatty tumor the size of a hen's egg, situated near the ankle-joint, a little above the outer malleolus. My patient consented to the use of cocaine. I accordingly injected fifteen drops of a four per cent. solution into the body of the tumor. After waiting fifty seconds, I made my incision over the tumor, from above downward. I then separated, with some difficulty, the skin and cellular tissue from the organized mass, and, in my attempt to sever its connection with the tissues, I was obliged to use the knife quite freely. There was little bleeding —soon controlled by the free use of cold water. The several parts were properly adjusted, stitched; a compress and a roller bandage completed the operation and dressing.

During the whole of this operation my patient looked on, an interested spectator, but confessed no pain. The incision with the knife, as well as the force required to separate the tissues from the tumor, and the final force required to separate the mass from the living tissues, did not cause pain—no, not even a sensation.

The usual sick stomach followed the operation, but this cannot be ascribed to the use of cocaine.

My patient was a man of intelligence and of unquestionable integrity, so that, as regards the total absence of pain, I do not regard I have been deceived any.

A Treatment of Acute Dysentery.

Dr. Wm. J. Parker thus writes in the *Mississippi Valley Medical Monthly*, November 10, 1884:

For dysentery proper—there being no manifestation of the typhoid condition, and the bright red blood in the alvine dejections not profuse—the following is my plan of treatment for an adult:

℞. Oleum ricini, ℥i.
Hydrarg. sub-mur., gr. x. M.
Sig.—Every hour, until a "good free (dark) passage" is procured.

And ofttimes it requires five potions to do it. Moreover, if the *five* do not bring about the free passage, I discontinue the calomel and endeavor to evacuate the bowels at once by continuing the oil—large doses every hour. As soon as possible

after the bowels *are* evacuated, I commence with quinine. S.—Five grains every three or four hours until my patient is cinchonized. To control the tenesmus, tormina and *pains*, a half grain of opium, or better, four grains of Dover's powder might be added to the quinine; but, instead of giving an opiate in this manner, injections per anum of starch water and laudanum might produce a better effect. For the fever, if purely dysenteric, I give aconite. As a rule it is necessary to "carry out" this treatment every odd day, *for a time*. You may sigh; nevertheless this plan of treatment, however heroic the first part, acts most happily in *my* hands.

Absence of Vagina, Uterus, and Ovaries in an Apparently Well-Built Woman.

In the *New York Med. Jour.*, January 24, 1885, Dr. Henry J. Garrigues reports an abstract of this case. He publishes the case because it was usually said that there should be some signs pointing to such a condition in the appearance of the patient; especially that there should be a weakly, imperfect general development, absence of the mammæ, etc., but in this case there were absolutely no such signs. Even on examining the external genital organs one would have supposed the patient to be quite normally developed; it was only on searching for the vagina that he discovered the condition described.

The case was also interesting as showing the manner of natural development of the vagina and uterus. One point which had puzzled him a little was the history of the monthly molimen, for he had been unable to find any trace of ovaries. The patient, however, had some headache and general malaise almost constantly, and we could easily imagine that these symptoms might be increased a little every month.

The question might arise whether he was warranted in telling the patient that nothing could be done for her. Of course, if a uterus had been found, the treatment would have been to make an artificial vagina; but would it be proper to make an artificial vagina for the sole purpose of coition? He thought not; the woman would be exposed to much danger thereby. The operation itself would be dangerous, and the act of copulation in this artificial canal would expose her to constant danger.

Cocaine in Rectal Surgery.

The *Lancet*, January 17, 1885, says that cocaine seems destined to play an important part in the treatment of painful affections of the rectum and genito-urinary system. Dr. Bettelheim, of Vienna, reports the case of a man, aged seventy-four, who had well-marked anginal attacks, the result of atheroma of the aorta and ossification of the coronary arteries. For some time he had, in addition, complained of rectal and vesical tenesmus. Percussion over the bladder showed that it was not dilated, and rectal examination demonstrated the fact that the prostate was much enlarged and probably the cause of the trouble. Cacao butter suppositories were ordered, each containing half a grain of muriate of cocaine. One of these was introduced into the rectum at bedtime, and the patient slept well, and was not troubled during the night. The beneficial effects were apparent the whole of the following day. The suppository was not given that evening, and the patient passed an uncomfortable, restless night. The next day another suppository was ordered, and acted as well as the first. From the promptness and efficacy of the cocaine in this case, a brilliant future may be anticipated for the alkaloid in this department of surgery. It is now being largely used in many of the London hospitals in the treatment of piles, fissure, and fistula.

Vinegar in Diarrhœa and Dysentery.

Premising that Dr. John H. Brinton used to recommend, fifteen years ago, injections of cider vinegar in gleet, we note the following practical contribution from Dr. Amos Sawyer to the *St. Louis Med. and Surg. Jour.*, January, 1885:

"About a quarter of a century ago, when giving me some good advice for a young practitioner to follow, the late Dr. B. F. Edwards, of St. Louis, Mo., whose accuracy in the measurement of the action of remedies, truth in statement, and justice toward the members of the profession, made him a shining light in the early history of our State, among other things, said: 'Never make fun of an old woman's remedy, for not only will you give offense and thereby injure your practice to the extent of her influence, but you may throw away what would have proved upon trial to be a valuable adjunct in your practice.' He then cited this case to illustrate the importance of his injunction: 'In 1830, while practicing in Madison county, Ill. I was induced by the representations of *an old woman* to make the trial, in dysentery and diarrhœa, of tablespoonful-doses of *pure cider vinegar*, with the addition of sufficient salt to be noticeable, and it acted so charmingly that I have never used anything else.' He was prescribing it in 1870, making a period of forty years."

Cocaine in Vaginismus.

In the *Medical Press* we read that Dr. G. De G. Griffith has found this new and greatly-vaunted remedy useful in the above condition. Speaking of a case of vaginismus and dysparæmia, he says:

"The patient came to me suffering very acutely; not only was pressure on the perineum exquisitely painful, but the bare touching it was pain; indeed, blowing on it produced distress, and so intolerable was the suffering that examination had to be completed under chloroform. On the third occasion of attending the patient, I mopped the perineum, fourchette, and lower part of the vagina with a solution of the cocaine, after which I was able to introduce the large-sized Fergusson's speculum, which was retained for about two hours, as steady, continuous pressure had been found to give relief. I wish particularly to draw attention to the ease procured by the cocaine, although it was transient."

Valoid of Coca.

The *Lancet*, January 3, 1885, tells us that the valoid is made from the fresh leaves of the coca plant, each drachm representing that weight of the crude drug, including the whole of the alkaloidal and other principles. It has been extensively employed of late, and, curiously enough, is found to exert a double physiological action. In small doses it acts as a sedative promoting sleep, whilst in larger quantities, such as three or four drachms, it stimulates the nervous system and induces an increased capacity for mental exertion. It has been used with much success in sleeplessness arising from overwork or worry and anxiety, and also in the treatment of impotence, spermatorrhœa, and a number of allied diseases. It has no toxic action.

Ointment for Syphilitic Ulcers.

The *Union Médicale* says that M. Terrillon prescribes the following: Pyrogallic acid and starch, of each twenty parts; vaseline, sixty parts. After mixing, the ointment is to be kept in a completely closed bottle, and is to be applied once a day to venereal ulcers, making two applications when the ulceration is very extensive. The sores lose their virulence after the first dressing. In place of the ointment a powder may be spread over the ulcer, by means of a small bellows, composed of equal parts of pyrogallic acid and starch.

—Dr. E. S. Gaillard, editor of *Gaillard's Medical Journal*, died in New York, February 2.

Correspondence.

On Muriate of Cocaine.

Eds. Med. and Surg. Reporter:—

So much is being written in regard to the use of muriate of cocaine, that any observation tending to establish it on a reliable basis will, I believe, be welcome to the profession. As a local anæsthetic to mucous surfaces with a limited application, its value seems pretty well established. But that it will mitigate the pains of labor by painting over the os uteri, in which the whole organ shares in the work, as some enthusiasts have claimed, to me seems simply absurd; not to mention the waste of a valuable and expensive remedy, which, at present at least, demands of us an economized use.

My use of it is limited, with one exception, which I briefly append, to traumatic conjunctivitis, with the results heretofore reported.

About Christmas, a little 2 years old girl in one of my families, unknown to its parents, ate a quantity of dough, of which was being constructed one of those gastric abominations, Christmas chicken-pie. Beyond a slight febrile condition, no immediate symptoms were manifest. Soon after Christmas dinner, which consisted of a generous portion of the pie in question, vomiting occurred, continuing through the night at frequent intervals, followed toward morning by brisk purgation. At this juncture I was called, and deeming the digestive tract pretty well evacuated, gave small doses of Dover's powder, combined with minute doses of sub-chloride. In a few hours a brisk convulsion occurred. Castor oil was now administered, which soon revealed the offending substance to be dough, numerous large boli of which were passed at frequent intervals for twenty-four hours. By this time extensive irritation of the rectum was manifest by violent and long-continued tenesmus. Nervous exhaustion indicated by convulsive twitchings, rolling of the head from side to side, disturbed sleep, etc., rendered the case an anxious one. Injections of starch-water and laudanum were of no avail, as with one or two exceptions they could not be retained at all, being forced out beside the rectal tube. A 3 gr. solution of nitrate of silver was of little avail.

I conceived that the muriate of cocaine would be useful if it could be applied. I could not brush it over the surface, the ideal method; no means of injection, and at that time no data as to dose. In this dilemma, I resorted to my cast-away instruments, and found a silver tube some two inches in length, one-eighth inch in diameter, and tipped with a perforated bulb the size of a common pin. I plugged the open end of this, and through the plug thrust the needle of my hypodermic syringe, thus producing an ideal syringe for this purpose. I then drew into my syringe-barrel 15m of a 4 per cgnt. solution of cocaine, (P. D. & Co.,) and, first penciling the anus, injected, with little resistance from my little patient.

This small amount, about 10m, as I estimated the tube would contain about five, was not likely to be rejected. A refreshing sleep of some three

hours followed, the tenesmus did not return, and convalescence was soon established. I should not again hesitate to inject 20 or 30m in a future case, if so much seemed necessary to reach the point of irritation. In such cases as these, I doubt not the cocaine will find a wide field of usefulness, and meet a long-felt want.

L. J. Gibbs, M. D.

Chicopee Falls, Mass., February 10, 1885.

News and Miscellany.

How Long Are Scarlatinal Patients Infectious?

The *Med. Press*, January 21, 1885, says:

A dispute which is going on at the present time between the Manchester Health Committee and the Board of Management of the Royal Infirmary, illustrates the importance of this question, and the difficulty there is in giving an authoritative answer to it. The former allege that the latter, who are responsible for the management of the Monsal Fever Hospital, are retaining the cases of scarlet fever sent to them an unnecessary time, and they have, in consequence, refused to pay their accounts in full for the last two quarters, deducting some $2,600. To understand the relations between the two authorities, we may state that in 1881 Manchester obtained powers for the compulsory notification of infectious disease, and at once took steps to provide suitable hospital accommodation. Having no fever hospital belonging to the Corporation, arrangements were made with the Royal Infirmary, and Children's Hospital, at Pendlebury, to receive infectious cases from the city, the remuneration given being a fixed sum annually, and in addition, $3.50 to $5.00 per week per patient, according to the number sent. The sums paid during the last two or three years amounted to about $25,000 per annum to the Royal Infirmary, and $5,000 to the Children's Hospital. At the beginning of last year, some complaints were made by another authority, who sent patients to Monsal, that they were sending out scarlet fever patients who were still desquamating, and thereby spreading the disease. These complaints caused the Monsal authorities to keep their convalescents for a longer period, and it is to the enhanced expenditure incurred thereby that the authorities of the city of Manchester take exception. They allege that some cases have been retained as long as fourteen weeks, and the majority have been kept considerably over six weeks, a period which their medical adviser, the health officer for Manchester, considers ample. The Board of Management of the Infirmary have passed a resolution calling on the city authorities to pay the sum deducted, forthwith, at the same time refusing to receive more cases except on the understanding that their own medical officers are to be the sole judges of the fitness of the cases to be discharged. The further question then arises for consideration by the corporation, whether it shall establish an infectious hospital of its own, and thus be independent of the Monsal Fever Hospital?

The question in which we, as representing the rofession at large, are most interested, is as to the length of time it is necessary to retain scarlet fever patients in quarantine in order to render them absolutely free from the suspicion of spreading the disease on their discharge? We take it as certain that, as a whole, the profession are agreed that the process of desquamation which usually follows the rash must be complete before the patient is discharged, very few being found to agree with Mr. J. Makinson Fox, Medical Officer of Health for Midcheshire, who believes "that a fortnight after the cessation of the fever, the epithelium that was shed was, after disinfection of the skin, absolutely harmless." We believe this latter opinion to be not only radically wrong, but extremely dangerous, and to act upon it would seriously endanger the lives of our patients' friends.

We do not believe the disinfectant exists which would effectually destroy the germs or microbes of scarlet fever present in or beneath the epithelial layer without injuring or destroying the skin itself, and nothing short of a complete desquamation will render the patient free from infection. But then the difficulty arises, that while in the majority of cases the skin becomes smooth by the end of the fifth or sixth week, desquamation, especially about the feet or heel, continues for two, or even three months. Is it necessary to retain the patient for this period? We can hardly believe that it is. We believe that if during the period of the fever, or the three weeks during which time the patient usually keeps his bed, he is washed daily with carbolic soap, or water containing some sulphurous acid, and then has warm baths daily during the next three weeks, soaking his feet in water to peel away the thick skin that so pertinaciously adheres, he may be discharged with the greatest probability of safety at this period—the end of the sixth week—and with absolute safety by the end of the eighth. If desquamation reappears after his discharge, we should not think it of any consequence. If the present dispute should be the means of establishing convalescent homes for fever patients where the cost of maintenance would be far less than when in hospital, it will have served a useful purpose.

How the Commander of the "Monitor" was Wounded.

The fight between the "Monitor" and the "Merrimac" is the subject of *The Century* war series for March. From the late Commodore S. D. Greene's paper, entitled "In the Monitor Turret," we quote the following: "Soon after noon a shell from the enemy's gun, the muzzle not ten yards distant, struck the forward side of the pilot-house directly in the sight-hole, or slit, and exploded, cracking the second iron log and partly lifting the top, leaving an opening. Worden was standing immediately behind this spot, and received in his face the force of the blow, which partly stunned him, and, filling his eyes with powder, utterly blinded him. The injury was known only to those in the pilot-house and its immediate vicinity. The flood of light rushing through the top of the pilot-house, now partly open, caused Worden, blind as he was, to believe that the pilot-house was seriously injured, if not destroyed; he therefore gave orders to put the helm to starboard and

'sheer off.' Thus the 'Monitor' retired temporarily from the action, in order to ascertain the extent of the injuries she had received. At the same time Worden sent for me, and leaving Stimers the only officer in the turret, I went forward at once, and found him standing at the foot of the ladder leading to the pilot-house.

"He was a ghastly sight, with his eyes closed and the blood apparently rushing from every pore in the upper part of his face. He told me that he was seriously wounded, and directed me to take command. I assisted in leading him to a sofa in his cabin, where he was tenderly cared for by Dr. Logue, and then I assumed command. Blind and suffering as he was, Worden's fortitude never forsook him; he frequently asked from his bed of pain of the progress of affairs, and when told that the 'Minnesota' was saved, he said, 'Then I can die happy.'

"When I reached my station in the pilot-house, I found that the iron log was fractured and the top partly open; but the steering-gear was still intact, and the pilot-house was not totally destroyed, as had been feared. In the confusion of the moment resulting from so serious an injury to the commanding officer, the 'Monitor' had been moving without direction. Exactly how much time elapsed from the moment that Worden was wounded until I had reached the pilot-house and completed the examination of the injury at that point, and determined what course to pursue in the damaged condition of the vessel, it is impossible to state; but it could hardly have exceeded twenty minutes at the utmost. During this time the 'Merrimac,' which was leaking badly, had started in the direction of the Elizabeth river; and, on taking my station in the pilot-house and turning the vessel's head in the direction of the 'Merrimac,' I saw that she was already in retreat. A few shots were fired at the retiring vessel, and she continued on to Norfolk."

Khartoum.

"The Land of the False Prophet," is the title of the opening illustrated article in the March *Century*, by General R. E. Colston, who was formerly a bey in the Egyptian service. From it we quote the following; "Khartoum is a city numbering between fifty and sixty thousand people. Several European consuls reside there. The American Consul was Azar Abd-el-Melek, a Christian Copt from Esneh, and one of the principal merchants. The European colony is small, and continually changing; for Khartoum is a perfect grave-yard for Europeans, and in the rainy season for natives also, the mortality then averaging from thirty to forty per day, which implies three thousand to four thousand for the season. Khartoum is the commercial centre of the Soudan trade, amounting altogether to sixty-five million dollars a year, and carried on by one thousand European and three thousand Egyptian commercial houses. Drafts and bills of exchange upon Khartoum are as good as gold in Cairo and Alexandria, and *vice versa*. From official sources I learned that the city contained three thousand and sixty houses, many of them two-storied, each of them having from ten to one hundred and fifty occupants. Stone and lime are found in abundance, and the buildings are, after a fashion, substantial, the houses belonging to rich merchants being very spacious and comfortable. There are large bazaars, in which is found a much greater variety of European and Asiatic goods than would be expected in such distant regions. In the spacious market-place a brisk trade is carried on in cattle, horses, camels, asses, and sheep, as well as grain, fruit, and other agricultural produce. Many years ago an Austrian Roman Catholic mission was established and liberally supported by the Emperor of Austria, and by contributions from the entire Catholic world. It occupies a large parallelogram, surrounded by a solid wall. Within this inclosure in beautiful gardens of palm, fig, pomegranate, orange, and banana trees, stands a massive cathedral, a hospital, and other substantial buildings. Before the people of Egypt and the Soudan had been irritated by foreign interference, such was their perfect toleration and good temper that the priests and nuns, in their distinctive costumes, were always safe from molestation, not only at Khartoum, but even at El Obeid and the neighborhood, where the majority are Mussulmans and the rest heathens. It was stated some months ago that Gordon had abandoned the Governor's palace, and transformed the Catholic mission into a fortress, its surrounding wall and massive buildings rendering it capable of strong resistance."

A New View of Cholera.

The Italian correspondent of the *Chicago Medical Journal* (January, 1885), gives the following amusing extract from a pamphlet on cholera, written by Leonard L.:

"Having thus spoken, Leonard asks himself: 'What is cholera?' Upon this question is what he has been meditating in his solitude in the country since 1854. At last he has it. '*It is nothing more than a consequence of the displacement of the worms of which we are made up.* A sudden fear, an indigestion, or any other disorder which shakes, but does not kill the delicate mass of worms, will arouse them, and they, leaving their normal place, will assail and suffocate the patient, as frequently happens in nursing children. The rice-pap discharges are nothing else but a mass of smaller worms with their excreta, triturated by the current of the larger worms which assail the belly, stomach, and throat. The greater or less intensity of the assault are proportionate to the greater or less intensity of the disease, and hence the *cholerine*, the *cholera*, and the *cholerone*.'

"After having reproached physicians, who were not willing to risk their lives by making any autopsy on the cadavers, for the disease is highly contagious, and adding that it is 'one thing to speak about death and courage, and another is surely to die,' he gives a very interesting explanation why cholera becomes diffused and contagious. 'Because the worms, offended by the stench of the cadavers of their brethren, try to escape from their place, and in so doing, violently assail the belly, stomach, and throat, causing the choleraic symptoms, and also death, according to the intensity of the assault, as already described above.'

"Leonard, not yet content with having done so

much good for humanity, sacrifices all himself . . . and suggests remedies indicated to pacify and replace the worms, and to kill those who are enraged when they threaten our lives with deadly assaults, viz.: 'For cholera and cholerine, strong coffee, olive oil, rum, bitter decoctions, etc. For the *cholerone* . . . according to the strength of the patient.' These points constitute his secret nostrum, *discovered by chance* and *much tried*, which he will make known when 'asked by the authorities.' He is also 'willing to do this if public opinion will favorably receive and appreciate his bold publication.'"

A Japanese Girl's Toilet.

When a Japanese girl gets up in the morning, she washes her face, but does not have to dress her hair. That is attended to but once a week. The hair-dresser comes to the house and arranges her jet-black locks in the fashion for little girls of her age. So she has no trouble about her hair, and after her bath, the servant assists her to powder her neck with a small white brush. She puts a little red paint on her lower lip, and a little gilding in the middle. When she removes her sleeping-dress, she has on only a short skirt, which is simply a square piece of cloth, crape, or silk, tied around the waist. No other undercloth-ing is worn.

In making her toilet for the day, she first puts on a garment made usually of some coarse material, not very long, and reaching only to the waist, but with long sleeves. On the neck of this garment is sewed a deep fold of scarlet or some bright-colored crape or silk. A long, straight skirt of blue or red crape, silk, or wool, is tied around the waist; and over all three of these garments is worn the kimono, or dress. This is of some dark color, and made of coarse-spun silk or thick crape. For festivals and holidays, the dresses are of very fine material and very handsome. The outer dress is simply a wrapper, reaching to the feet, with very long and and wide sleeves, hanging nearly to the ground, and used as pockets. On each shoulder, a deep tuck is made which extends to the waist, thus making a little fullness for the skirt. But the dress has no gathers, and is straight all the way down. The neck is adorned with a wide piece of black velvet or satin, which reaches nearly to the waist, and the dress is crossed over the bosom and confined by a girdle. Over this is worn a very wide sash, a piece of brocaded silk or satin, stiff with embroidery in gold or silver, lined with soft silk, and fastened behind in a very large bow. When these are all on, but barefooted, or, if in cool weather, in white mitten-socks, made to reach only to the ankle, and with a place in which to put the great toe (just as mittens have a place for the thumb), she goes out to say "Ohaio," or good-morning, to her father or mother.—*M. C. Griffis, in St. Nicholas for March.*

A Japanese Baby.

M. C. Griffis thus writes in *St. Nicholas* for March:

When Kinè, the little Japanese baby, was one hundred days old, she was carried to the temple, just as some American parents take their little children to the church to have them christened, though Kinè's parents do not know or worship the true God. The priest wrote a prayer on a piece of paper and put it into the prayer-bag, which was small and made of red crape, embroidered in white flowers and drawn together by silk cords. This bag containing the prayer was the "guard from evil," and it is devoutly believed by all Japanese to have the power of keeping children from evil spirits, from delusion by foxes—for the people think that foxes can cheat or enchant people—and from all dangers. This little red bag was attached to the girdle behind. After bestowing a gift of money upon the priest, the parents and relatives returned home with the little girl and held a great feast in her honor. Kinè was carefully nursed, and carried on the back of a faithful servant, who fastened her there by a long string or bandage drawn around the waist and legs of the child, and crossed over the neck and shoulders of the maid. Her little head and bright eyes would bob on every side as her nurse walked or ran, and here she would go soundly asleep, or play as any baby would. She was never carried in any person's arms. Japanese babies seldom are. When Kinè's aunts or cousins wished to coax her away from her nurse or mother, they would hold their backs invitingly, and she would put out her little arms and go to one or another as she chose. Clasping tightly the neck of the favored one, and held there by the feet or legs, she would be as happy as if cuddled up in the arms. As the baby grew and began to walk, little sandals made of straw were put on her feet. These were fastened on by putting the great toe through a loop. When she was a year old her hair, which had been shaved, was allowed to grow a little, and then tied on the top in a very funny fashion. Every year it was worn differently.

The Advantages of a Good Dinner.

We have already referred to Dr. T. Lauder Brunton's lectures on "Disorders of Digestion" (see editorial, page 278), and we now note the following amusing and suggestive sentences. He had been to a good dinner, and he says:

"This dinner was a revelation to me; it not only showed me that cookery might rank as one of the fine arts, but taught me that it might be a powerful moral agent. I went to the dinner exhausted with overwork, irritable in temper, and believing that city companies were wasteful bodies, who squandered money that might be employed for useful purposes, and that they should be abolished; I came away feeling strong and well, with an angelic temper, and firmly convinced that city companies had been established for the express purpose of giving dinners, and ought on no account to be interfered with. Nor was the good thus effected of a transitory nature; the irritability of temper, which had disappeared in the course of dinner did not return; and the morning afterwards, instead of awaking with headache and depression, I awoke strong, well, and ready for work, and remained so for a considerable length of time. Nor do I think that mine is a solitary case. A succession of heavy din-

ners is, no doubt, injurious; but when the organism is exhausted, a good dinner, with abundance of wine, is sometimes of the greatest possible use. But there is one condition which must not be neglected, or otherwise the consequences will be anything but satisfactory; the dinner must be well cooked, and the wines must be thoroughly good."

An Anecdote of Garfield.

A year before his election, General Garfield could have been seen daily sauntering along Pennsylvania avenue, laughing, talking, nodding his head to this acquaintance and to that, without any obstruction to his progress in the shape of a sidewalk reception. Those who did not know him personally were familiar with his face and name. The ladies had heard his eloquence in the House—the street urchin had seen him at the base-ball grounds, shouting, with the eagerness of a boy, his pleasure or dissatisfaction as the game progressed. While a member of the House he often took occasion to run out into the suburbs of the city to witness this exciting sport. I remember one afternoon when he reached the stand erected on the grounds a few minutes after I did. I was leaning against the front rail of the platform, and, clapping me on the shoulder, he asked, "Who's ahead?" I gave him the information, and he thereupon became so interested in the game that he seemed unaware that his heavy weight upon my little body was, to say the least, inconvenient. He was constantly exclaiming: "Good catch!" "Fine hit!" "Oh! what a muff!" and other well-known extracts from base-ball language, and he soon grew so excited as to make me feel the effects. I thought it wise to move to a place of safety, and I finally succeeded in edging away through the crowd.—*From "Among the Law-makers," by Edmund Alton, in St. Nicholas for March.*

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended February 7, 1885.

Long, W. H., surgeon, relieved at Detroit, Mich., to proceed to Chicago, Ill., and assume charge, February 4, 1885.

Godfrey, John, passed assistant surgeon, to proceed to Vicksburg, Miss., and Memphis, Tenn., as inspector, Feb. 6, 1885.

Bennett, P. H., assistant surgeon, to assume temporary charge of the service at Detroit, Mich., Feb. 4, 1885.

Williams, L. L., assistant surgeon, to report to the officer-in-charge at Detroit, Mich., for temporary duty, Feb. 7, 1885.

RESIGNATION.

Miller, T. W., surgeon, resignation accepted by the Secretary of the Treasury, to take effect March 1, 1885, Feb. 4, 1885.

PROMOTION.

Godfrey, John, passed assistant surgeon, promoted and appointed surgeon by the Secretary of the Treasury, from March 1, 1885, Feb. 6, 1885.

APPOINTMENT.

Williams, L. L., M. D., of South Carolina, having passed the examination required by the regulations, was appointed an assistant surgeon by the Secretary of the Treasury, Feb. 6, 1885.

Young Women as Athletes.

As evidencing the growing interest in hygiene, we are pleased to note that a number of young society women in this city have organized an athletic club, to be known as the "Women's Athletic Association." The members will include two or three sets of young ladies prominent in society. A hall is to be engaged, and a perfectly-appointed gymnasium will be the feature of the place. At the meeting at which the association was organized there was a heated discussion on the question of roller skating. Of the thirty-nine members, fourteen denounced the amusement as vulgar and prejudicial to health, and the opinions of several of the leading physicians of the city were read to back up their argument; but as twenty-five members voted in favor of rolling skating, a rink will adjoin the gymnasium.

The club members will also form a riding club in the spring, and daily rides will be taken through the Park in pleasant weather. The by-laws of the association state that gentlemen will not be admitted to the rink or gymnasium, and that only riding-masters employed by the association will accompany the members on their riding expeditions. Lady friends of members are to be admitted as spectators to the rink and gymnasium. Negotiations are being made with a view of getting the City Institute Hall, at Eighteenth and Chestnut streets.

Medical Missionary Work.

A convention of medical students was held, March 1, in Association Hall, in this city. A number of prominent physicians from this city, and several missionaries from foreign countries, attended both sessions. At the afternoon conference Rev. R. M. Luther, M. D., of Burmah, spoke of medical missions in India and Burmah; Rev. James Cameron, M. D., of the China Inland Mission, gave an account of the propagation of medical science in China and Thibet; Rev. Gerald F. Dale showed its progress in Turkey; and Professor D. Hayes Agnew, M. D., addressed the conference on "Medical Colleges in Heathen Lands."

In the evening, Rev. R. C. Atterbury, M. D., of Pekin, China; Rev. Arthur Mitchell, D. D., of New York; and Professor Theophilus Parvin, talked about medical missionary work in general. The purposes of the convention are to get medical students interested in the work, and to bring before the public the necessity of medical missionaries in foreign lands.

Sham Quinine.

Dr. C. Edson, of the Health Department of New York, says he is busy working up cases against a good many drug-shops that are selling adulterated quinine. A short time ago he caused the arrest of a druggist named Gebick, at 409 Third avenue, and he has been committed, under bail, to await the action of the Grand Jury. The Doctor, on analyzing the stuff sold as quinine, says

he found it contained 50 per cent. of sugar of milk. Fifteen additional samples, from as many different druggists, are now being analyzed by Professor Waller, of the Columbia School of Mines, and he is morally certain that the majority of these are adulterated with cinchonidia and quinidia; but no names will be given until the guilt of the parties is beyond dispute. It may be added that the supply of genuine quinine in this market is unusually large, and, as prices are comparatively low, there is all the less excuse for palming off on the public the spurious article.

Sanitary Council.

The Executive Committee of the Sanitary Council of the Mississippi Valley has fixed the date of the seventh annual meeting of the Council for Tuesday, March 10, proximo, and in the city of New Orleans. This is about a month earlier than its meetings are usually held, and the committee assigns as a reason for the change the probability of Asiatic cholera appearing in the country, and the uncertainty concerning national legislation on public health matters. Invitations are extended to all State and local health authorities in the valley, and to representatives of commercial and transportation interests.

Cerebral Studies.

"The Brain of Man: its Architecture and Requirements," is the title of a paper which Dr. A. L. Ranney, of New York, contributes to the coming March *Harper's*. This is a thoroughly scientific, yet highly popular, presentation of the latest knowledge of the brain, which should interest every one who has a brain. There is nothing more marvellous than the recent progress of science in this direction, and a number of diagrams help to make clear to the reader how far scientists believe the localization of function, and to what extent phrenology has a scientific basis.

Items.

—Dr. Eugène Bodichon, known chiefly in connection with his efforts to bring into notice the febrifuge qualities of the eucalyptus globulus, died on the 28th of January, at Algiers, aged seventy-four.

—In cirrhosis of the liver, Prof. DaCosta recommends the persistent use of small doses of hydrargyri chloridum corrosivum (gr. $\frac{1}{30}$ t. d.), with an occasional saline purgative to keep the portal circle unloaded.

—Knowsley Thornton has made eleven nephrectomies, all by abdominal section. All have recovered. This remarkable record is supplemented by four nephrotomies by the lumbar incision, three of which recovered.

—In the *Centralblatt für Gynäkologie*, Dr. Roth regards globus hystericus as due to a paræsthesia of the sympathetic. And as the pellitory root has been found useful in paralysis of the tongue and pharynx, the author was led to try it in globus. He gives from ten to twenty drops of tincture of pyrethrum four times a day. He reports six cases in which he employed it.

—We learn that a meeting of the citizens of East Boston was recently held with reference to the erection of a memorial to the late Dr. Thorndike, and that action was taken looking to the building of a public hall to be named after the deceased surgeon.

—In Prof. Bartholow's experience, metrorrhagia produced by fibroids or fungous granulations is much more decidedly held in check by diluted sulphuric acid than by ergot; while menorrhagia dependent upon ovarian excitement is generally more quickly relieved by bromide of potassium.

—In a case of chronic psoriasis of eleven years' duration, and which had during this time baffled all treatment, Prof. DaCosta placed the patient, a young man of 22 years, on Donovan's solution, gtt. x. t. d., to be increased to gtt. xx: t. d.; the object being to produce the full physiological action of the remedy.

—Sir Joseph Lister, Bart., has been appointed by the Emperor of Germany a Knight of the Order Pour le Mérite for Science and Art—an honor very rarely conferred. Professors Koch and Pasteur have recently been elected Corresponding Members of the Academy of Sciences in St. Petersburg.

—In a paper upon butterine, read before the Society of Arts, it is stated that in 1883 over 40,000 tons of that product were imported into England from Holland, the factories at Oss sending 150 tons a week. The latest improved butterine consists of oleomargarine, milk, vegetable oil, and real butter.

—On January 27th, at the West London Hospital, Mr. Swinford Edwards ligatured six large hæmorrhoids in a woman aged fifty. As she was the subject of aortic disease, it was decided not to administer an anæsthetic. One minim of a 4 per cent. solution of cocaine was therefore injected into each pile at the muco-cutaneous junction, after which the entire surface of the mucous membrane at the lower part of the rectum was painted over with a like solution. The operation, which lasted twelve minutes, was almost painless, the patient only slightly feeling the last incision. Twenty-five minims of the solution of cocaine were used in all.

—The Faculty of Medicine of Paris has awarded the prix Châteauvillars to Dr. Constantin Paul for his work entitled "The Diagnosis and Treatment of Diseases of the Heart." The Academy of Medicine has divided that portion destined for prizes of the Morbinne legacy among the following gentlemen: Dr. A. J. Martin, 4,000 francs, for his work on the "Civil Sanitary Administration in Foreign Parts and in France;" Drs. Straus and Roux, 2,000 francs each, for their cholera researches at Toulon; Dr. Van Morris, of Dunkirk, 2,000 francs, and to Dr. Amat, military surgeon, 500 francs, for their memoirs on the influence of sea-bathing in the treatment of scrofula in children.

DEATH.

CONNER.—February 3, 1885, 9 a. m., in Palmer, Illinois, Amy Lulu, infant daughter of Dr. J. J. and Mrs. M. E. Conner, of congestion of the lungs, aged 1 year, 4 months and 24 days.

THE
MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

LECTURE.

CLINICAL LECTURE ON DISEASES OF WOMEN, DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROF. T. GAILLARD THOMAS, M. D.

Reported for the MEDICAL AND SURGICAL REPORTER.

PREMATURE MENOPAUSE; THE OPIUM HABIT.

GENTLEMEN: Our first patient to-day is Mrs. Fanny D——, a native of Germany, and thirty-six years old. She has had two children and one miscarriage; but has been a widow for ten years. Her last pregnancy (when she had the miscarriage), occurred fourteen years ago, and she says she has now been sick for three years. I want you to observe the countenance of this patient carefully, for its characteristics are very significant; and I am sure that any good practitioner, with a fair amount of experience, would have no difficulty at all in arriving at quite definite conclusions concerning such a face, without asking the woman a single question.

Now, for the history which she gives of herself: Three years ago, she says, her courses stopped, and they have never reappeared since. In addition, she began to have severe cramps about the abdomen, and these have steadily continued, while she has also suffered from a terrible sensation in the hypogastric region, which she cannot describe, but which makes her feel, she says, as if "there was a large hole there, which never seems to get filled up." I do not wonder that she is not fully able to describe this feeling, as no writer with whom I am acquainted has ever yet succeeded in giving an adequate description of it. It is at the pit of the stomach, where is situated the solar plexus, which the old writers used to graphically call the *cerebrum abdominale*, that one experiences the pangs of nightmare after a late supper, and that the intemperate man feels the alcoholic craving, which can only be satisfied by resorting to his accustomed stimulus. It is this great ganglionic plexus which constitutes the origin of the sigh, and which gives rise to those feelings of peculiar weight and oppression which we experience when suffering from any disagreeable sensation. Under ordinary circumstances, however, we are entirely unconscious of the existence of any such *cerebrum abdominale*.

On inquiring if the patient has any additional troubles, we find that she has considerable abdominal enlargement, her person being fully the size of that of a woman at the end of the eighth month of pregnancy, or who has an ovarian cyst of eighteen months' growth. She suffers, also, from frequent epistaxis and headaches of great severity; and this is all, except that all the time she feels utterly miserable and unhappy. This melancholy and depression are so profound that she says her only wish is to die; and you notice that even now, while she speaks, she is weeping, which the friend who accompanies her here tells me is a thing of constant occurrence.

Here, then, is a woman who was perfectly well up to three years ago, when something happened which she laid great stress upon, viz.: the cessation of the menses.

In consequence of real or imaginary suffering she began taking morphia. At first the doses

were small, but afterwards she gradually increased them, until for the past two years and a half she has actually been taking ten grains of sulphate of morphia a day, or seventy grains a week. Each week, she says, she pays $3.50 for the drug, which must be no inconsiderable tax upon her resources for a woman in her position in life.

You will find opium-eating very common in patients suffering from uterine or ovarian troubles. On account of the painful symptoms which they experience, they take at first a quarter of a grain of morphia night and morning. After a time it gives rise to those peculiar sensations at the pit of the stomach, of which I have spoken, and to relieve which an increased quantity of the drug must be taken. The habit is like a leak in a dam, which, if left to itself, will result in the sweeping away of the whole structure, and thus the vice rapidly progresses until the individual is a complete slave to it. When what is known as the opium craving is once experienced, its demands become almost irresistible.

What has made this woman an opium-eater seems to have been the early occurrence of the menopause. At that time she probably suffered from certain neuralgic pains incident to the sudden and premature stoppage of the menstrual function, and for the relief of these she began taking the morphia. In consequence of the effect of the drug upon the system, peristalsis was stopped in the intestines, and the gaseous disturbance, which, when I practice percussion here, you will observe, is the cause of the abdominal enlargement which has been noted.

You see before you, then, a perfect picture of opium-eating; and in view of the melancholy results here so apparent, I cannot too earnestly caution you against fostering such a habit in your patient. Especially would I warn you never to instruct a patient in the use of the hypodermic syringe. This is the most dangerous method of taking opium, and most of you would, no doubt, be astonished if you could know how many physicians have become addicted to its use in this way.

It is next to impossible for patients of this kind to be cured by the exercise of their own wills, and, therefore, I will recommend this woman to enter the establishment of Dr. Mattison, of Brooklyn, where such cases are treated with great success, and where, as the Doctor has informed me, the large proportion of patients are physicians who have acquired this unfortunate habit. I have not time to dwell upon the treatment that would be prescribed for this patient in this institution; but will only mention the fact that the opium would be stopped entirely. If this were done for one month, I am confident that the abdominal cramps would disappear, because the opium craving would be gone. When an individual gets in the habit of taking hypodermic injections of morphia for the relief of supra-orbital neuralgia, for instance, the neuralgia is sure to come on when the opium-craving makes itself felt, and it will not be relieved until the craving is satisfied with more morphia.

A patient of mine suffering from disease of the ovaries and the fallopian tubes became accustomed to using 70 grains of morphia a week by hypodermic injections, and I decided to remove the affected organs. After the operation, she was not allowed the smallest particle of the drug in any form for six weeks, and when I last heard from her she was entirely cured of the opium habit. There is no other disease present in this case except the opium habit, and therefore, I think, the patient ought to be treated in some such institution as that of Dr. Mattison. If she will consent to adopt this plan, I am confident her pains will all be removed by the removal of the remedy which she takes for them, and I trust that she will come back to let us see the result at the end of six weeks.

PREMATURE MENOPAUSE MISTAKEN FOR PREGNANCY.

Our next patient is Mrs. Theresa K——, thirty-one years of age, and a native of Ireland. She is married, and has had two children and two miscarriages.

Miscarriages, as I have previously had occasion to remark, are exceedingly common, and it is a rare thing to find a woman who has had five children without at least one miscarriage. It is not at all uncommon to find, as here, the miscarriages equal in number to the births at full term. There must, therefore, be an enormous loss of human life from this cause.

The history which this patient gives of herself is as follows: She has not had her courses for eleven months, and when they stopped, eleven months ago, she thought she had become pregnant. The reasons which led her to suppose this, in addition to the cessation of the menses, were, sickness in the morning, enlargement of the abdomen, pain in the back, and longing for unusual things, such as she had noticed in her former pregnancies, irritation of the bladder, and, finally, movements like those of a fœtus. She felt perfectly certain that she was pregnant, and in a healthy married woman, thirty years old, who

had had two children and two miscarriages, and who, consequently, ought to know, there certainly was every reason to suppose that such was the case.

Could the rational symptoms have been more complete? If she had consulted you at the fourth month you would have told her, as I would have done, that she was pregnant; and you would have had a perfect right to do so. Yet the real truth in this case is, that the woman reached the menopause eleven months ago, notwithstanding the fact that she was only thirty years old. There cannot be the slightest doubt, therefore, that all of the symptoms which she has noticed, with the exception of a single one, the abdominal enlargement, were simply the effect of the imagination.

The signal of pregnancy appeared in the cessation of the menses, and all the rest followed as a natural consequence. The abdominal enlargement, which is real, of course lent additional coloring to the idea of pregnancy; but this, I find, is simply due to the increased development of adipose tissue, which so frequently characterizes the menopause. It is, no doubt, from this circumstance, as well as the fact that imperfections in the complexion connected with the function of menstruation often disappear at this time, that the expression, "fat, fair, and forty," had its origin. The abdomen here is fully as large as in the case of the patient who was last before you; but the uterus, instead of showing any increase in size, has already become considerably atrophied, so that the canal is less than two inches in length. Still, you must not forget that notwithstanding the uterus is not enlarged, the woman may yet be pregnant. A few weeks ago, I had the opportunity of showing you a negress upon whom, two years ago, after bringing her before the class here, I operated successfully for the relief of abdominal pregnancy at the Woman's Hospital. With the possibility of such a condition in view, I therefore made a careful examination in this case, and the result enables me to exclude abdominal pregnancy here.

These cases of mistaken pregnancy sometimes place the physician in a very unpleasant situation, and entirely without any fault of his. The only way to avoid such mistakes is by making a physical examination, and this, as a rule, it is not advisable to do unless it is particularly requested by the patient and her family. There is one point to which it may be well to call your attention in this connection, and that is, that women who have unlawfully exposed themselves to the risk of becoming pregnant are exceedingly apt to imagine that they are *enceinte*. In some instances they become really monomaniacs, and it is almost impossible to convince them that pregnancy does not exist. In our present patient the imagination has worked in a different way, and it is in cases like this in private practice that so much trouble is often occasioned the physician. The more wealthy and influential such a patient is, the more liable is he to be abused if it turns out that she is not pregnant. When called upon to express an opinion in the early part of a supposed pregnancy, you should always say that upon the end of the third month no one can decide the matter by even the most careful examination.

PELVIC HÆMATOCELE.

Our last patient to-day is Susan B., 42 years old, and a native of England. She is married, and has had one child, sixteen years ago. She has never had any miscarriages. She states that she was confined to bed for six months after her child was born, and that the doctor who attended her called her illness inflammation of the bowels. Her present trouble, however, has only been experienced during the last ten months. One night, ten months ago, she says, she twisted herself in bed, and felt a sharp pain in the left side, low down. It was not at the time of her monthly sickness; the flow having ceased two weeks previously. Since this "twisting," she has never been well. She was not confined to bed at first, but she afterwards had to take to her bed, and the physician whom she called in gave her an abdominal bandage. She remained four months in bed, and during the last six months has suffered so much pain that she has been obliged to remain more or less of the time in bed. During this period she has always had her monthly sickness regularly; but she does not suffer at such times any more than she does at others. In addition to the pain she says she feels very weak and miserable.

This is certainly a very curious history. The attack which followed the birth of her child sixteen years ago was probably one of pelvic peritonitis, and it occurred so long ago that it need not concern us now. After that the woman became perfectly well, and remained so until ten months ago, when she wrenched herself while in bed, since which time she has been in constant suffering. Without a physical examination it would be impossible to draw any deduction whatever in such a case as this. Even after having made a physical examination, I am not willing to make a positive diagnosis; but I will, at all events, tell you what was found, and the most

probable conclusion to be derived from the existing condition of affairs. On introducing my finger into the vagina, I ascertained that the cervix was drawn up under the symphysis pubis, and pressed against the bladder; while back of the uterus there was a hard mass, not very sensitive to the touch. Conjoined manipulation showed this mass to be large and wholly immovable. It was this which was pushing the uterus forward and against the symphysis pubis, and it also pressed posterioriy against the rectum.

When the patient wrenched herself in bed, as she has told us, she probably ruptured one of the utero-ovarian veins, and all through the night there was more or less outpouring of blood. A large mass of coagula formed, and the result is this pelvic hæmatocele from which she has been suffering for the past ten months. This condition results more frequently from rupture of the utero-ovarian veins than from that of any other. Such an accident is liable to occur from any unusual strain, just as rupture of the blood-vessels in any part of the body. Quite recently I saw an account of the death of the most noted fencer in Paris from cerebral apoplexy, after engaging in fencing practice for half an hour; yet at the autopsy it was found that there was no diseased condition of the arteries whatever.

I have said that I believed this mass back of the uterus to be a pelvic hæmatocele; but let us suppose for the moment that it is not this. What else could it be? *First*, could it be a fibroid, which has perhaps prevented this woman from child-bearing for sixteen years, and the attachments to which she wrenched while turning in bed ten months ago? As to the failure to bear children, I think the torn condition of the cervix which exists in this case offers the more satisfactory explanation; and as to the wrenching of the attachments of a fibroid tumor, this would not have given rise to constant pain for ten months. Last year a patient consulted me on account of a pelvic tumor, which I made out to be a uterine fibroid; but not long after she came under my care she passed a large quantity of clots by the rectum, and the tumor disappeared. It was, therefore, simply a pelvic hæmatocele. Such I believe to exist here.

What, then, shall we do with our patient? My only advice to her will be to let herself alone and stop going to doctors, as time will certainly cure her. In private practice, however, such a patient would expect some relief, and it would, perhaps, be well to use the faradic or galvanic current twice a week. There is, no doubt, a neuralgic element in the trouble, from pressure upon the nerves, and this would be relieved by such a course of treatment. Some of you would, doubtless, like to ask why I don't insert a bistoury, or, at all events, an aspirator needle into this mass, and relieve the patient at once. There is a time in the course of almost every medical man when he is anxious to plunge his knife into almost everything that offers the slightest pretext for such a procedure; but I have gotten past that period now. These pelvic hæmatoceles cannot be interfered with without a great deal of risk to the patient, and, consequently, I think this woman had better "rather bear those ills she has than fly to others that she knows not of."

Communications.

THE INCANDESCENT ELECTRIC LIGHT FOR THE EXAMINATION OF THE THROAT, NOSE, EYE, AND EAR; AN ELECTRIC OPHTHALMOSCOPE.

BY LOUIS J. LAUTENBACH, M. D.,
Of Philadelphia.

(*Concluded from page* 298.)

It may not be uninteresting, nor is it without the scope of this paper, to consider the various forms of incandescent lamps, and the means of generating the electricity suitable thereto. A very good opportunity of observing the different varieties of lamps was afforded at our Electrical Exhibition a few months ago. Of the numerous incandescent lamps exhibited, it will be necessary to call attention to but a few. In the Bodein lamp, exhibited by Messrs. Queen & Co., the incandescent filament is in the form of a straight bar placed at right angles to the platinum poles. The intensity of current required is low. In the Weston lamp, the filament is a series of undulatory curves; in the Bernstein lamp it consists of a hollow cylinder of carbonized woven silk, shaped like a U, with long arms, requiring, to produce whiteness of light, a very high tension current; in the Edison lamp, it consists of a fine carbonized long armed U, requiring, also, a high tension; in the Swan lamp, it consists of an elongated U, with a round loop situated within the curve. This loop is not present in their lights less than 40 volts; in the Baudet lamp the filament is quite broad in cross section, and is U-shaped; it requires considerable quantity of current of low intensity.

In my work, I have used the Swan and Edison lights, as well as the small lamps of Dr. Starr

(obtained at S. S. White's dental establishment). The Swan light used by me was a nine-volt lamp of slightly more than two candle power; the filament a slight curve 6 mm. in length. The Edison light, which was placed at my disposal through the kindness of a friend, was a 16 c. p. 95-volt lamp, the arms of the U-shaped filament being 7 cm. in length, and separated 2 cm. from one another. The Starr lamps were both of them of about 1½ c.p., the one being a 3.8-volt lamp, the other slightly less; the filaments were slightly curved, one 4 mm., the other 2.5 mm. in length. The employment of the electric-light without the use of any lenses, will often prove satisfactory, the objection to its use in this way being that with the smaller lamps employed the illumination is poor, and the image of the incandescent filament is quite small. A very important question which must be here considered is the production of the electricity to work the lamp. How are you going to obtain it? from a chemical battery, a dynamo, or from either one in connection with a storage battery? Hoping that our electric-light companies might be able to furnish it, I inquired at the offices of the Maxim and of the Brush Cos. At the Maxim's office I found them willing to supply the entire plant, consisting of the lamps, with a dynamo machine to supply them; it would, with the necessary engine, cost several hundred dollars. They were not able to supply lights from their office, but hoped that they would be able to do so some time in the future. At the office of the Brush Company, who own the American rights of the Swan light, I found that they would put in the lights with the dynamo, but that they were engaged in the perfection of storage batteries, which were to be supplied from their arc-light wires. They thought the problem of supplying the incandescent light was in a fair way of solution; that progress was being made from day to day. This company is at the present time supplying the basement of John Wanamaker's Thirteenth Street store with some seventy 8-c.p. Swan lamps by means of the current from a secondary battery, charged from their arc wires. The examination of the lamp on December 6th, 1884, showed it to be a Swan loop lamp, the straight arms of the U being 2.5 cm. long and 2 cm. from one another, the loop being, therefore, 2 cm. in diameter. The light was of a decidedly yellow color, the intensity of the current being too low to attain the desired whiteness, the light, however, being steady and quiet; the light given forth December 10th was a nearer approach to whiteness.

Not desiring to purchase a plant, I endeavored to employ the chemical battery, and in a measure succeeded. The Grenet battery, because of its high intensity, appeared desirable, but unfortunately the elements soon polarize and its efficiency rapidly diminishes. The battery requires considerable attention; the zincs must be removed from the liquid after using, they must be kept clean and freshly amalgamated, the liquid must be frequently renewed.

The Bunsen battery has also been used for electric lights. It is a battery which in its practical workings is of comparatively low intensity, and is very dirty, too much so to have in one's office. At the Electrical Exhibition it was used to furnish the current for three small microscope lamps of about 1 volt each. Two gallon Bunsen cells were employed, the liquid being renewed but once during the course of the Exhibition, the lamps being used one or more hours every day for some 35 days. The light, because of the low intensity of the battery, was decidedly yellow.

The Leclanché battery is an open circuit battery, also of low intensity. Its employment is attended with indifferent success.

The Fuller battery, as modified by Dr. Starr, is also an open circuit battery, but unlike the Bunsen and Leclanché, is of high intensity, each cell having an electro-motive force of almost 2 volts. This battery has been used for intervals throughout the day for more than three months, without requiring renewal of the plates nor recharging.

The bisulphate of mercury battery has been employed, but runs down too rapidly.

For the 2½ c. p. 9 volt Swan lamp, I employed 6 to 12 half-pint Grenet cells, coupled for intensity, giving me, therefore, when the battery was fresh and in perfect order, an intensity of about 20 volts. I found that this battery would answer fairly well, using it from 30 to 45 minutes per day, actual working time, for about a week. If after this it was used without renewal of the fluid, it could not be depended upon, the lamp perhaps burning well for a moment, and then becoming dull red.

The 2½ c. p. Swan, when supplied by three half-gallon Fuller cells, gave a fairly good light, apparently steady after the battery had been used for more than three months. Had I been able to employ four of these cells, I do not doubt but that the whiteness of the light would have approached, and perhaps equaled that obtained from twelve fresh half-pint Grenets.

For the 1½ c. p. 3.8 volt Starr lamp, I made use of four Grenet cells, half-pint each, and found

the light thus obtained of a beautiful whiteness. When, however, the battery had been employed for about thirty minutes daily, after six or seven days the light became yellow and not to be relied upon, the battery requiring fresh fluid.

The 16 c. p. 95 volt Edison light used by me, was supplied from a dynamo machine, and gave a most beautiful light.

Objections which have been urged against the employment of the electric light in examinations of the human organs are: first, the great heat; secondly, the intensity of the light; third, the sharp shadows occasioned; fourth, the presence of the sharp image of the incandescent filament wherever the light is thrown; fifth, its unreliability; sixth, its expense.

Taking up these objections seriatim, we will discuss first the question of the excess of heat. The incandescent electric light is peculiarly free from appreciable heat, provided the lamp has been well made, the vacuum being good. This is because there is no combustion. There is nought but an incandescent filament of carbon suspended in a vacuum. There is in fact so little heat created by the well-made lamp that it was only with difficulty that the rhinoscopic mirror could be heated sufficiently by the 16 c. p. 95 volt Edison, to prevent the deposition of moisture.

The second objection mentioned was the intensity or the brilliancy of the light. As yet, this has caused me no inconvenience. On one occasion I used the 16 c. p. 95 v. Edison steadily for an hour, giving forth a most brilliant bluish-white light, using it for the examination of a friend's eyes at least half that time, with a peculiar absence either of momentary blindness, or the least irritability occurring either in my friend's or my own eyes. This examination was made between 10 and 11 p. m., after a full day's work, and was followed the next morning by a feeling of utmost comfort in both cases. Since this was written, I at night examined the left eye of a friend with the 1½ c. p. Starr light continuously for more than an hour, not only with no inconvenience to either of us, but with a feeling of the utmost ease, comfort and rest being present the following morning. However, in examinations with an intense white light, one must be careful not to gaze directly at the filament before making the examination, as in that case it will be difficult, because of the inferior intensity of the reflected light, to study structures carefully. This is easily prevented by interposing a shade between the light and your own eye, being careful not to obstruct the rays falling on the reflecting mirror.

The sharp shadows, instead of being a disadvantage, are in many cases very serviceable. In order to understand the reason of this, we must consider the nature of the light we are dealing with. In the electric lamp, we can get the light from a full red to extreme whiteness, the color depending mainly on the intensity of the current. By using a current of sufficient tension to produce a brilliant white light, we obtain not only the light from the incandescent filament, but we also have a less intense violet-white light occupying the entire globe of the lamp. If we look at an incandescent light, this luminous sphere may be so intense as to prevent us from seeing the filament. When the electric light is reflected upon the membrana tympani, or upon the retina, or upon the structures of the posterior nares, we notice the image of the filament very distinctly; this is surrounded by the illumination derived from the vacuum (if it may be so called) surrounding the filament. This general illumination may be used as readily as gas-light; the special illumination being used for the throwing of shadows, thus studying elevations and depressions, and for the more particular study of the structures. By throwing the bright image at various angles, we can not only overcome the shadow at any particular portion, but we can also study the more carefully any variations from the general curvature of the parts. By means of the shadow the curvature of the turbinated bones can be studied much more satisfactorily. The shadow is also of considerable advantage in ear work, by giving us a more correct idea of any irregularities or variations in the curvature.

The fourth objection mentioned was the constant presence of the bright image of the incandescent filament, whether the light was used alone or in connection with a Mackenzie or a Tobold; whether beside a rhinoscopic or laryngeal mirror was employed. This fact has struck me as a peculiar advantage; it can be utilized. and will, I think, do us good service. As before mentioned, the bright image is surrounded by a less intense, but more general illumination. In this general illumination the lines of the image stand forth sharp and clear. This bright line enables us not only to study special structures, such as the macula lutea, the porus opticus, and the blood-vessels of the eye more thoroughly; but also if the image of the light be for part of its extent a straight line, it enables us to appreciate and estimate the degree of curvature of surfaces. Any elevation or depression present within the eyeball deflects the line of light; in posterior

staphyloma there is a marked change in the direction of this line; the depth of the porus opticus is revealed by the angular deviation of the line; a slight elevation of the nerve is easily discovered by the same means. By means of this line, the degree of retraction of the membrana tympani and its curvature can be studied; in rhinoscopic examinations, the line is valuable for the same reason. In laryngeal examinations I have not found it of any service.

The unreliability of the light is, I think, at present a valid objection. It is, however, not the lamp which is at fault, but the batteries. All chemical batteries are troublesome to have about, many of them give off acid fumes, and besides require considerable attention, running down rapidly; but by the employment of double fluid batteries, which are fairly constant, the light can be made to be much more reliable.

At present, electric lights are expensive, not because of the original cost of the lamp itself, but because chemical batteries are expensive. There is, however, some hope of relief. At the present time, our electric light companies are keeping up steam all day for the running of their dynamo-electric machines at night; the cost is but little less than it would be were they to run them all day. There is no reason why the current should not be produced during the day, and be stored up to be employed as necessary. There would be thus be a direct saving effected. Physicians could be supplied in this way at a moderate expense, and would then have a reliable current.

Considering, now, the advantages of the electric light, we have, first and foremost, its approach to daylight—its whiteness. In all other artificial lights, with the exception of the calcium light, the yellow rays preponderate. Yellow rays are a decided disadvantage. So apparent was this to Wm. R. Wilde* that in his treatise on ear disease he writes, "Shades of vascularity produced by inflammation or congestion, speckled opacities, minute points of morbid deposit, and slight ulcerated abrasions, want of polish, and loss of transparency, etc, cannot be detected" by the artificial light. In the white light of the incandescent filament there are no yellow rays, and the illumination resembles very strongly a good day-light. Of course, if the current traversing the filament be not of sufficient intensity, we may have yellow light. A second advantage is its brilliancy or intensity. This brilliancy is so intense as to allow us the more readily to recognize slight changes; this is marked in ear examinations. By means of this light the rhinoscopic image becomes very much more distinct, and the membrana tympani shows slight changes not otherwise discernable.

There are two advantages possessed by this light which are often considered objectionable. I refer to the fact of the light casting strong shadows, and the presence of the image of the filament in the part illuminated. Having above set forth why I consider them as aids in examination, it is not necessary to say more.

The vitiation of the air by gas is a material objection, which is particularly noticeable in the dark-rooms of our eye dispensaries. The electric light would render the dark-room more bearable, and the headaches, so frequently occasioned, would be much less common.

For the larynx and posterior nares, Dr. Starr's or Dr. Seiler's laryngoscope, or Trouve's photophore, or the lights placed in a Mackenzie or Tobold condenser, can be employed.

The illumination of the ear is best attained by means of a small lamp placed close to the speculum, the lamp enclosed in a shield or cap, with a small round opening; if a large lamp be at hand, the employment of the head mirror to reflect the direct rays into the ear is not to be despised.

For the eye, the direct rays obtained from a large Edison or Swan lamp reflected into the eye prove of great service. These large lights are not always obtainable, and then the electric ophthalmoscope, before described, will be found to be of use.

In purchasing a light, those ranging from ½ to 3 c.p. of not more than 10 volts, should be selected from. Lamps of larger size cannot at present be employed without the use of a very large and expensive battery. Filaments of the Bodein, Baudet, Edison, and Swan patterns should be employed.

To run lamps of the size indicated, requires from 2 to 16 half-pint Grenet cells, or 4 half-gallon Fuller cells. If the battery is to be employed for the light alone, the Fuller cells should be bought.

For general use, a Baudet 9 volt lamp run by 4 half-gallon Fuller cells, is, perhaps, the most satisfactory that can be purchased at present.

When we all can have storage batteries charged by our electric light companies, we will be able to employ lamps of greater length of filament and of greater resistance, and will then become the more conscious of the advantages of the electric light over all the other lights for medical examinations; and they will then be as common as the Argand burner is to day.

* Diseases of the Ear, 1853, p. 69.

I can do no less than acknowledge my indebtedness to Dr. Wm. H. Burk, for assistance kindly rendered during the course of this paper.

DILATATION OF THE SPHINCTER ANI IN DISEASES OF THE RECTUM.

BY WILLIAM F. WAUGH, M. D.,
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In several recent journals I have noticed dilatation of the sphincter ani recommended by French surgeons as a new method for the treatment of hemorrhoids. There is nothing new in the operation, which is described at length in Allingham's excellent work on rectal diseases, where the credit of bringing the method before the profession is given to Verneuil.

Allingham also points out as the cases for which dilatation is best suited, those in which the hemorrhoid is constricted by the spasmodic contraction of the sphincter; while in those cases which are attended by relaxation of the sphincter, the operation would only do harm.

Taking this for my text, I propose to show that in other affections in which we find spasm, or at least too powerful contraction of the sphincter ani, the operation of dilatation is of use, by putting the muscle at rest.

A butcher, aged 26, came to me for relief from an attack of piles. He had been subject to the disease for years; usually suffering from an acute attack twice a year. Some years since I injected a large hemorrhoid with carbolic acid for him, with the effect of giving him more pain than he had ever suffered previously, and confining him to his bed for nearly a week, while the hemorrhoid was not benefited in the least.

This time I found an internal hemorrhoid tightly grasped by a spasmodically-contracted sphincter. He experienced so much difficulty in emptying his bladder that he requested me to see if he were not affected with stone. Prof. Gerhard administered an anæsthetic, and I forcibly dilated the sphincter ani to its fullest extent, carefully going round the whole circumference until every portion of the muscle was completely softened, and the anus replaced by a large gaping orifice. Some soreness was felt after recovering consciousness, but the next day, and each day subsequently, he was back at his stand in the market, not losing an hour on account of the operation. For a few days he had to attend promptly to the calls of nature, but after that he regained full control over his rectum, and at no time was he seriously inconvenienced by its temporary paresis.

The pain of the hemorrhoids was at once and completely relieved by the operation; though I dare not go so far as the French surgeons, and affirm positively that it will never return. But the most striking feature of the case is that the difficulty in emptying the bladder was also relieved completely by the same operation; and it occurs to me that in some cases of vesical tenesmus dilatation of the sphincter ani might give relief. This is made more probable by the history of my second case.

The four-year-old son of the man whose history I have just given was seized with colic some weeks after his father had been operated upon. For ten days I gave him anodynes, laxatives, and carminatives; and in spite of them, the poor child cried with pain a large part of each day. Careful examination revealed no adequate cause for the pangs, and I was about to express the opinion that he had a foreign body impacted in his intestinal canal, when the mother told me he had to strain a long time before he could urinate. I endeavored to introduce a sound to examine his bladder; but not succeeding, on account of his resistance, passed my index finger into his rectum to obtain some information as to the state of his bladder in that manner. I found nothing abnormal; but on withdrawing my finger, he ceased his cries, and the colic was cured. Nor did the pains alone disappear, but the straining to urinate also ceased; and since then he has no difficulty whatever in promptly emptying his bladder.

A gentleman came to me for relief from a fistula in ano. It was a complete fistula, the external opening an inch from the anus and the internal so high up the rectum that I deemed it imprudent to cut. I therefore administered an anæsthetic and dilated the sphincter with my thumbs in the same careful and thorough manner as in the preceding case. I then introduced an elastic ligature, drew it tight, and fastened it with a pewter clamp. Unfortunately, I pinched the cord too tightly in the clamp, and three hours after the operation it broke, and clamp and cord came away. Owing to the pressing nature of the gentleman's business, it was a month before he could come to me to have the operation repeated. On examining the fistula, I found it had healed completely. As the elastic cord can hardly be held to have any healing properties, I can only believe that the cure resulted from putting the sphincter at rest by dilatation.

One other spontaneous cure of fistula in ano has occurred in my practice.

A young married lady came to my office with a

complete fistula opening on the labia majora, nearly two inches from the anus. A hard, cord-like sinus could be felt under the skin leading back to near the sphincter margin. In examining the case, I used a rectal speculum, which dilated the anus painfully. The day was appointed for the operation, the patient came, but the external opening had closed. Not having some apparatus I wished, she was told to return in three days. When I examined her then, I found the internal opening had also closed, and the sinus was disappearing. In a word, the fistula was healed spontaneously. Not until the preceding cases occurred could I comprehend why this fistula healed, as I had not even passed a probe through it, nor done anything else which could set up a curative degree of inflammation.

Of the effect of dilatation in curing simple fissure of the anus I need not speak at length; the merits of the procedure in this painful affection being well known to every physician. The close relation of the sphincter ani with the sphincter vesicæ is apparent. Both are supplied with nerves from the sacral plexus. It is impossible to produce voluntary contraction or relaxation of either without the other. Spasm of the one induces a similar condition of the other. Hence, the inference seems justifiable that dilatation of the sphincter ani would relieve spasm of the sphincter vesicæ; and this is borne out by the history of the first two cases related above.

Hospital Reports.

A CLINICAL LECTURE.

BY WM. H. WATHEN, M. D.,

Professor of Obstetrics and Diseases of Women and Children in the Kentucky School of Medicine.

Reported by ALLEN KELCH, M. D.

Sterility.

GENTLEMEN.—This woman, Mrs. P., 25 years of age, was referred to me by a professional friend. She has been married about four years, and has never been pregnant. She has until the last year been regular, both as to time and quantity, in her menstrual functions. Since then the flow has been diminished very much, at times only staining her linen. Otherwise there is nothing in the subjective history that points to any abnormal condition. She bears the appearance of a healthy woman, and she complains of no suffering. Her husband, a stout, vigorous man, says he has never had any constitutional disease, nor *any* disease of his generative system. Sexual connection has been perfect, both having desire and pleasure; yet after four years of married life she has not conceived—so there must be some fault with her or with her husband, which, it is my purpose to discover, and, if possible, correct. I feel an especial interest in this case, for the reason that this woman and her husband are anxious to have children, and, as a conscientious physician, appreciating the moral as well as the professional responsibility that rests upon me, it is my duty to do everything I can to bring about a successful result. The moral aspects of the subject of sterility may be matters of serious importance, and I wish in this connection to call your attention to the great evil of the present day, practiced in every station of life throughout this great country—the prevention of conception and the destruction of unborn life.

This is collateral to the subject which I desire to discuss, for the reason that people who practice the prevention of conception or abortion are, while potentially fertile, practically sterile. There should be no necessity for me to attempt to urge upon you the great moral and professional evil of practicing abortion, for that ought to be well recognized in all respectable society; however, let me remind you that there is a great obligation resting upon you in this particular, for the reason that you will be importuned by husband or by wife, by married as well as single, to produce abortion yourself, or to give directions by which others may accomplish it. Let me say to you, that no physician, under any conditions, without sacrificing his manhood as a physician, can countenance the production of abortion, and that it is his duty to discountenance it on every occasion. It would be an insult to your intelligence to dwell upon this subject.

But I will now refer to the habit of preventing conception, the line of demarcation between which and the destruction of unborn life, the moral philosopher can scarcely draw.

There is nothing about which the moral nature of woman is so warped as that which concerns her duty in regard to childbearing; women who are otherwise intelligent and moral, reputable members of society and of church, will not hesitate to persist year after year in preventing conception. You will often meet with women who will reason intelligently upon every other subject, but are deaf to all argument upon this. I would not detain you to speak upon this subject if you could find the proper consideration of it in text-books. It is a subject to which authors give too little attention.

The prevention of conception is a violation, not alone of the laws of morality, but likewise of the laws of nature; it is destructive alike of the morals of married life and of the physical and mental health of the husband and wife.

If we consider the history of this question, we find that the prevention of conception has been condemned and punished from the earliest history of the world: the fate of Onan, you well know, and his sin of withdrawal before his semen was deposited in the vagina, was the same that is now practiced everywhere. Numerous other instances are given in sacred history where God has punished mankind for the commission of this evil. The very first command God gave to Adam and Eve was, "Be fruitful and multiply, and replenish the earth." A like commission was given to

Noah, and many other instances might be drawn from sacred history. The Bible is full of evidence of the will of the Creator upon this subject, and that every violation of that will has been severely punished. In the New Testament, St. Paul advocates and urges the same doctrine. There is nothing that is more likely to result in disease, not only of the woman, but of the man, than indulgence in this practice.

I recall to mind a patient who recently consulted me, suffering from nearly all the multitudinous forms of reflex nervous disturbance, with enlargement of the uterus and a constant leucorrhœa.

The uterus, the vagina, and the vulva were in a hyperæsthetic condition, and her mind on the verge of insanity. Her husband has, for the last two or three years been insane. On inquiry, I learned that after the birth of their last child, now 12 or 14 years of age, they agreed that they would have no more children, and upon consulting with a *physician*, were advised to prevent conception by withdrawal before the emission. The moral effect of this upon the woman and the man is nearly identical with that resulting from masturbation. The physical disturbance is even greater when the organ is withdrawn at the beginning of the orgasm. The vasa defferentia remain partially filled, the connection being incomplete and unsatisfactory, and causing the husband to have a more frequent desire for sexual connection than is healthful. The failure to deposit the semen in the vagina doubtless leaves a state of congestion of the female organs that may sometimes remain until a repetition of this incomplete connection. A final result is engorgement, possibly displacements, hyperplasia, and kindred conditions, entailing various nervous disturbances of the system.

Pardon me, gentlemen, for this extensive digression.

Examination of the patient before us shows the uterus to be about normal in size, but the os uteri is small, and the cervix projects too far into the vagina, and is conoidal in shape. The immediate indications are that the sterility in this patient results from a fault in the woman, not only from this abnormal condition at once detected, but also for the reason that her menses are now materially lessened, indicating probably some ovarian incapacity; however, as soon as an opportunity presents itself we will make a microscopical examination of the semen of her husband, to determine whether it contains living spermatozoa.

The treatment of sterility is, of course, to remove the cause, if possible; and as a cause apparently sufficient exists in this conoidal cervix and contracted os, together with ovarian disturbance, we will direct our treatment to the removal of these conditions.

We will prescribe hot vaginal injections of two gallons of hot water every night during her intermenstrual period, and will give her the following prescription:

℞.	Ext. centuriæ benedic,	℈iss.
	Ext. ergotine,	ʒj.
	Ext. cannabis ind.,	gr. viij.
	Zinci phosphidi,	gr. j.

M. ft., capsulæ No. xxx.
Sig.—One three times daily.

Is it necessary to add that a change in the shape of the cervix must be made? The treatment formerly resorted to in order to accomplish this consisted of dilatation with sponge, seatangle, or tupelo-tents, or by slight division of the external os. This, experience has taught, is seldom successful, the os returning to its original size and shape, and the cervix remaining unaltered. Occasionally the shape of the cervix has been changed by amputation of a small portion; there is an operation that will accomplish this in nearly every instance much better and with less risk to the patient. I refer to rapid dilatation of the cervix by means of metallic dilators. I have been in the habit for several years of practicing rapid dilatation with Atlee's dilator, at my office, for sterility, dysmenorrhœa, menorrhagia, and metrorrhagia, and for the purpose of enabling me to make an application directly and easily to the lining membrane of the uterine cavity. The pain of the operation is trifling, and I have never seen the least unfavorable result. It is much safer than tents, for the reason that after their use we often have metritis or pelvic cellulitis or peritonitis. I have never had any of these complications after rapid dilatation. We will then first dilate this cervix to the full capacity of this dilator, which may open the os enough to allow semen to enter into the uterine cavity, and may also modify to some extent the shape of the cervix. If after a few months this woman does not conceive, and has not received material benefit in her local condition, we will then practice rapid dilatation with a large dilator, that will open the cervix as wide as an inch or an inch and a quarter. This is done by first introducing into the rectum an opium suppository, or by giving a hypodermic injection of morphia, after which the woman is placed under the influence of an anæsthetic, and the cervix dilated to the extent desired. This not only opens the os so that it seldom returns to its contracted condition, but changes the shape of the cervix, and if there be flexion tends to straighten that. When the circular fibres of the cervix are dilated, it is of course at the expense of the longitudinal fibres; thus it shortens, straightens, and entirely changes the shape of the cervix. Possibly in a few instances it may become necessary to make superficial quadrilateral incisions into the external os. This operation has been practiced many times by Prof. Goodell, of Philadelphia, with no unfavorable complication. You can dilate with Sims' large trivalve dilator, or the large-sized Ellinger's bivalve. If this treatment thoroughly done fails to produce fertility in this woman, then it is doubtful if anything can.

[The dilator (Atlee's) was then introduced, and dilatation to the full capacity made—Rep.]

(*To be continued.*)

—It has been determined to spend the very liberal sum of $600,000 in creating new scientific buildings in connection with the University of Turin. Half that sum will be provided by the Provincial and Communal Councils of the city, and the other half by the Government, with the sanction of the Italian Parliament.

Medical Societies.

PHILADELPHIA NEUROLOGICAL SOCIETY.

(*Continued from page* 303.)

Case 4. Dr. A. A. Y., male, æt. 65, resident of Hammonton, N. J. Examined the patient with Dr. S. Weir Mitchell on January 16, 1885. For the substance of the following notes I am indebted to Dr. Woodnutt:

History of patient: Family history excellent. He had always been strong and hearty during youth and up to 1865, though a hard-working farmer. An army life, and three years of extreme exposure prior to the close of the war, found him suffering in 1865 from sharp, wandering pains in the upper and lower extremities; never noticed, however, in the articulations. Loss of power followed in the right leg. Three years later suppurative arthritis attacked the metatarso-phalangeal articulation of the right great toe, and last phalanx of left ring-finger, sequestra coming away in each instance.

During 1870 the patient first noticed an œdematous swelling of the right elbow; following shortly upon this, the wrist-joint of the same arm gradually and painlessly enlarged. Then a distention of the capsule of the right knee-joint succeeded. The enlargement of the latter articulation was more rapid than either the wrist or elbow. Rheumatic pains in the joints accompanied the swelling and deformity.

The left limb has been comparatively exempt from pain. Recently, however, the capsule of the knee-joint has become distended and elastic. The elbow tumor has diminished somewhat in circumference during the past four years.

During the past year the distal phalanx of the right index finger has gradually atrophied, without inflammation, and is entirely wanting. The nail and finger end are normal, though somewhat shortened. Pain at present is chiefly in both feet, paroxysmal and erratic, often attacking corresponding points on the legs.

The present appearance of the right elbow and left knee joint enlargements exhibit an irregular nodulated hypertrophy, bearing no resemblance to normal joint outline, and consisting chiefly of osteophytes and abnormal increase of synovial fluid. Motion preternaturally free in all directions; structure of joints apparently entirely destroyed.

Remarks.—The joint lesions first appeared in this patient after ataxia had become established. The appearance of the affected elbow and knee is that of an enormous nodular hypertrophied mass of bone, doubling their normal circumference, associated with synovial distention of the capsule. Osteophytes readily movable within the capsule, and varying in size from a pigeon's egg to that of a turkey's.

The atrophy of the distal phalanx of the right index finger is especially to be noted, it being the first instance of complete absorption of the diaphysis of bone that I have had an oportunity of observing.

Case 5. W. H. McC., male, æt. 38, married. Admitted to the Orthopœdic Dispensary of the University Hospital in July, 1883.

Hereditary history excellent; no evidence could be obtained of articular disease, rheumatism, or phthisis, in any member of his family. He presented at date of examination the appearance of a healthy, well-nourished man. He has always worked industriously at his trade of plumber. A moderate drinker. He had constitutional evidence of syphilis, following a chancre contracted in 1863.

The patient attributes the present enlargement of the right ankle-joint to an injury received while working in a cramped position. Following this strain, the ankle became suddenly discolored and swollen, bursting the buttons from his shoes. He was incapacitated for work during the succeeding four days; at the end of a week, the discoloration and swelling had about disappeared. His attention was then first directed to a bony enlargement of the right ankle-joint. This slowly and painlessly increased in size, without any appreciable interference with locomotion. At present examination, the enlargement resembles a simple hypertrophy of the lower epiphyses of the tibia and fibula. The outline of the joint is globular, with slight elasticity of capsule. No pain or reflex muscular spasm.

Record of Spinal Symptoms.—Complains of darting pains about hips. Has difficulty in walking at night. Sways with closed eyes. Complete absence of patellar reflex on both sides. Dr. Horatio C. Wood saw him with me in October of 1883, and pronounced him ataxic.

Remarks.—This case presents an arthropathy that apparently followed a direct traumatism to the affected limb. From careful interrogation, I determined that the acute swelling and ecchymosis resulted from rupture of a varicose vein, inasmuch as these were numerous, and greatly engorged, about the affected ankle. The first attracted his attention to the ankle, the deeper bony growth being detected when the active symptoms of subcutaneous swelling had subsided. The hypertrophy of the joint has increased the circumference four and a half inches over its fellow.

Case 6. A specimen of shoulder-joint arthropathy, lately removed at an autopsy held upon the body of a well-marked ataxic, has been referred to me by Dr. S. Weir Mitchell, to embody in this report. The joint had become suddenly and painlessly enlarged in the later stages of the the central lesion. It presented ante-mortem all the characteristic symptoms of a tabetic arthropathy; distention of the capsule, abnormal mobility, and the presence of osteophytes. The joint, upon examination, presented the following:

1. Cartilage covering head of humerus eroded; that upon glenoid cavity irregularly thickened.

2. Anterior margin of glenoid cavity worn away, allowing the head of bone to rest in position of forward dislocation.

3. Osteophytes abundant about junction of capsule with anatomical neck. Marked relaxation of ligamentous structures, and distention of capsule.

4. General hypertrophy of epiphysis, somewhat nodular at margins. Evidences of hydrarthrosis.

The practical deductions to be drawn from a clinical study of the above somewhat anomalous cases, may be briefly summarized as follows:

Period of Development.—1. The tabetic arthro-

pathies may occur independently, or precede the active symptoms of locomotor ataxia.

2. They occasionally develop suddenly, late in the course of a posterior spinal sclerosis.

Nature of Lesions.—The peripheral expression of central nerve irritation is characterized by the following changes found in the structure of the various articulations.

1. A chronic asthenic hyperæmia of the synovial membranes; a hydrarthrosis.

2. An interstitial atrophy of the epiphyses.

3. A fungous or rarefying epiphyseal hypertrophy.

4. The formation of osteophytes and bony stalactites.

These various joint expressions characteristic of the spinal arthropathies may exist separately; but are usually combined in the same subject.

Differential Diagnosis.—They may be readily distinguished from the common inflammatory lesions of the epiphyses by the total absence of the reflex neural phenomena—*i. e.*, of pain, both reflex and local, the apprehensive state regarding joint movements and the reflex or tetanic spasm of the muscles, always associated with joint arthritis. Abscess is never directly associated with the arthropathies, unless incident upon direct traumatism.

They are more difficult to differentiate from malignant disease of the articulations; but a careful inquiry into the history and course of the lesion, and the presence or absence of central disturbance, are our most reliable guides.

Course.—The progress of the arthropathies is essentially chronic. Occurring early, not infrequently, in the history of the tabetic lesion, they slowly increase, with occasional exacerbations, and years elapse before fully matured. A rapidly developing arthropathy may be associated with the later stages of an ataxia. Their course is self-limiting, though never reparative.

Dr. Morris J. Lewis reported

A Case of Locomotor Ataxia with Loss of Teeth and Alveolar Processes.

The following anomalous case of locomotor ataxia has been under my care for three months in the Episcopal Hospital. He is now under the care of Dr. Henry M. Fisher, who courteously allows me to use the notes of the case.

Mr. A., æt. 45, a well-marked ataxic for over five years, presents the following history, some points of which seem well worthy of record. Nasal catarrh exists in several members of the family, including himself. During the war he was wounded in the hip and ankle slightly; the wounds healed kindly. He was confined for some time in Libby and Belle Isle Prisons, and since then has never felt strong. He denies having had syphilis. When 39 years of age he began to show the first symptoms of ataxia; these were diplopia, dizziness, and a staggering gait. One and a half years later he began to have lancinating pains in the extremities, and later in the bowels. Five years ago he began to have transient attacks of difficulty of hearing, and this has increased since then until about one year ago, when he became absolutely deaf.

He has always been constipated, and one year ago had slight difficulty in urination. Within the last seven months he has had severe gastric crises. Eyesight good until the last seven or eight months, except during the first year. Four years ago the symptom for which I present the case to-night first appeared. This was a loosening and a subsequent falling out of the lower wisdom teeth. No pain nor discomfort preceded this, and the teeth were perfectly sound. In fact he had an uncommonly fine set of teeth. After this his teeth gave him no trouble until about seven months ago, when the same change began in the upper jaw, causing the loss of every tooth except the right first molar, which still remains firm.

The sequence of these events appears to be as follows: First, the teeth loosen, then the gums recede, showing in places the alveolar processes denuded, the teeth then fall or are pulled out by the fingers, and finally the alveolar processes separate in small fragments, with slight suppuration, or are detached in larger pieces. The gum then heals. The largest piece of bone thus separated shows the sockets of three incisor teeth, and a portion of a fourth. The teeth show no absorption of their fangs, and are almost without exception perfectly sound. About four months elapse between the loosening of a tooth and the final healing of the gum.

Other points of interest in this case are as follows: The patient is extremely pallid; he has the ataxic gait, although this is not very pronounced. He cannot stand with eyes closed. The knee-jerk is absent, and has been for the last four years. There is no anæsthesia of the feet or legs, and the patient localizes touch fairly; there is, however, some analgesia. There is no retardation of sensation. Examination of the eyes shows external strabismus of both eyes. Pupils pinpoint for near accommodation, and relax for distant vision; no reaction to light. Ophthalmoscopic examination shows left eye-ground normal, and but slight atrophy of nasal border of right disk. His sense of smell and of taste is good. There are no lesions in any of his joints to be detected.

Dr. Lambert Ott presented a case of

Locomotor Ataxia with Charcot's Joints.

S. H., aged forty-five years, a traveling salesman. In 1866 he contracted chancre, no secondary symptoms following. In May, 1881, his present disease began with shooting pains in limbs and unsteadiness of gait. In November, 1883, I first saw him and diagnosticated his condition as locomotor ataxy. At the present time there is very little missing that goes to make up the symptom-group of this disease. In December, 1883, about two and a half years after the beginning of his trouble, he noticed a swelling of his left ankle. In the morning it seemed less, and in the evening it had increased to such an extent as to cause difficulty in taking off his boot. He had no pain, no impediment in using the joint, and had it not been for the swelling he would not have taken any notice of it. He thinks the swelling reached its maximum in two weeks, and there has been no great variation since, except that in the evening it is slightly increased. At present, his foot is moved normally, but when the back of the leg is grasped and extreme flexion made, crepitation is imparted to the hand; the

swelling is confined to the inner and dorsal surfaces of the ankle-joint, and feels bony. The joint measures in circumference one and a half inches, the leg at midcalf one-half inch, more than the opposite limb. There is no pain or tenderness on pressure or rough usage. He has been under treatment fourteen months, and has taken corrosive sublimate and chloride of gold and sodium. The electrical treatment at first was central galvanization and general faradization, and latterly the metallic brush, with the rapidly interrupted faradic current, with marked improvement.

The next paper was entitled,

Note as to the Comparative Effects of Active Voluntary Exercise, and of Passive Exercise by Massage, on the Production of Albuminuria,

by W. W. Keen, M. D.

At the request of Dr. Mitchell, I desire to call your attention, briefly, to one point of value in the use of massage, heretofore, so far as I know, unrecognized.

A patient, Mr. C. called upon me for relief from quite severe, constant, and long-continued pains in the calves of his legs. During the preceding year he had walked, as a matter of exercise, nearly 2,000 miles, and during the year before that had traveled around the world, making long rides and walks a marked feature of his trip.

In examining his case thoroughly I found that he had an albuminuria, the sediment forming (by heat and nitric acid) a varying bulk, on standing, of say from 3 to 10 or 15 per cent. This albuminuria I found, on further and most careful examination, to be curiously dependent upon exercise. This I finally tested in the following way: I put him in bed for three days and examined three and sometimes four specimens of urine passed at different times in the twenty-four hours. No albumen appeared at any time during these three days of rest. The last examination I made at his house at 1 p. m., on the third day. He emptied his bladder at that hour, and the urine was free from albumen. He then dressed and walked, by a pedometer, a measured mile. Immediately on returning he passed water which had about 5 per cent. of albumen. One hour later it had still a trace; two hours after the walk it was free. The next morning's urine was still free, but that passed at 9.30 a. m., at my office, after walking from his home, a mile distant, had again about 5 per cent. of albumen.

A few days later I employed massage. This was thoroughly done for forty to fifty minutes, by a most competent rubber. Examining the urine immediately before and immediately after the massage, both specimens were absolutely free from albumen. This I tested several times, with identical results.

This is a striking addition to Dr. Weir Mitchell's observations as to the resulting tissue changes induced by massage, and especially shows its value as a means of passive exercise without deleterious effects through nervous exhaustion. I believe the value of the massage to lie in the resulting stimulation to the muscular tissue, and the promotion of its nutrition without such changes of blood pressure and vaso-motor tonus in the muscular coat of the vessels, as induced the curious albuminuria after voluntary exercise above noted. The very probable nervous origin of albuminuria, as shown by its frequency in cases of long-continued nervous strain, and by the researches of DaCosta and Longstreth, would seem, also, to have a new confirmation by this observation. I regret that I did not at the same time observe the blood pressure by the sphygmograph, as it might have thrown additional light on the unusual facts above detailed.

My attention has also been called by Dr. Mitchell to an article on "Albuminuria as a Symptom," by the late Dr. Calvin Ellis, in the *Boston Medical and Surgical Journal*, 1880, vol. xxv., p. 388.

The following somewhat analogous cases are referred to by him: in one case (Dukes: "The Albuminuria of Adolescents," *Brit. Med. Jour.*, November 30, 1878, p. 794), a young man's urine was normal when in bed. On rising and taking milk only it would continue so, but after eating a piece of bread, the albumen would appear. As he improved while lying in bed, meat could be eaten without any change in the urine.

While this would look to digestive changes as a cause, the so-called post-cibal albuminuria, the following cases are more positive evidences of the effects of exertion in the production of albuminuria:

Edlefesen (*Berl. Klin. Woch.*, September 22, 1879), noticed in three healthy but anæmic men transient albuminuria after exertion. Leube (*Virchow's Archiv*, v. 72, p. 145,) examined the urine of a large number of healthy soldiers in the morning, and found it normal, but after a five hours' march or severe exercise, in June, July, and August, with a temperature of 54° to 77° F., it contained albuminuria in 16 per cent., though the amount was small, and never exceeded 1 per cent., and there were neither casts nor blood corpuscles. This could not be detected at a later examination, between 4 and 6 p. m. The same was seen under similar circumstances in army officers in connection with scanty urine, and also in nervous persons (Fürbinger, *Zeitsch. f. Klin. Med.*, 1, p. 345).

"It is most natural to suppose that its presence was owing, either to some variation in the blood-pressure, or to some change in the vessels. The rapidity of its appearance and disappearance makes it extremely improbable that there was any change in the vessels, and we are left with a variation of the blood-pressure. The view that the last might be operative seems to be supported by the statement of Ranke, that the blood accumulates in the muscles of a healthy man during exertion, while it is diminished in the organs which are at rest."

I may mention in the case of Mr. C., in the course of a year the albumen has become constant, though his exercise has been restricted to the least degree consistent with health; but the amount is never over a faint trace. At no time have any casts or blood been discovered. A prolonged sea-voyage is now being tried as a means of cure.

A paper was read by invitation on

Hysterical Affections of the Eye,

by George C. Harlan, M. D.

As it is well known, patients in the psychologi-

cal condition called hysterical, may not only present almost any symptom of disease, without the existence of any lesion to which such symptom could be referred, but sometimes make excursions termed the limits of classical pathology, and puzzle their doctors by originating symptoms that no possible lesion could explain.

It has seemed to me that the eye is an exceptionally pregnant seat of such affections, and that their occurrence there has hardly received the attention from neurologists, or perhaps even from ophthalmic surgeons, that might with advantage, be given to it. The accuracy with which eye symptoms may be analyzed, and the comparative certainty with which material changes in the tissues of this organ may be excluded, afford special facilities for the study of its functional, neurotic disturbances, which may often furnish the key to mysteries in other regions.

It is not my intention to trespass upon your time and patience by an extended discussion of this rather wide subject, but merely to direct attention to it by describing some of the symptoms of this class that have been met with in my own experience. As the shortest way of accomplishing this end, I will consider them in the anatomical order of the parts affected.

The lids are subject to both spasm and paresis of an entirely hysterical character. The former was well illustrated by a case recently published in the *Medical News*, in which violent and persistent blephrospasm, which had resisted other treatment for months, was cured at last by mental impression. The latter occurs in a singular form of transient paresis of the levator, occurring only on rousing from sleep.

The subjects of this affliction complain of a great difficulty, sometimes an entire impossibility, of opening the eye on awakening. In some cases this occurs always in the morning, in some even after a nap during the day, and in others only when aroused during the night, when perhaps the consciousness and will-power are regained less promptly. Such patients say that the lids seem too heavy to be moved by their own muscles, but after they have raised them with the finger, or bathed them in cold water, the difficulty does not recur until they sleep again. My attention was first called to this symptom some ten years ago, and I have met with so many cases since that I have come to consider it not very uncommon. Both eyes are usually equally affected, but in several instances only one was involved. In one of the latter now under my care, the affected lid has a slght degree of granular conjunctivitis, which could scarcely have other than a mental influence as a cause. With one exception, the subjects were all delicate women, some of them nursing. Of course, this is not a symptom to be lightly considered, without a careful investigation of the patient's general condition. The first time that I noticed it, it was one of the earliest indications of intercranial tumor, which, a few months later, caused the patient's death.

Singular action of the external muscles of the ball is so frequently met in nervous subjects that a well-known ophthalmic surgeon has discovered it to be the cause of nearly all the ills that nerves are heir to, and claims to remedy these ills by operating on the muscles. In fact, the external ocular muscles of hysterical patients are, in a large proportion of cases, not much better balanced than their minds, and, no doubt, decided results may sometimes be obtained by operating at the same time on both.

The most common form of this disturbance is insufficiency of the internal recti, which frequently occurs independently of any error of refraction. When very decided in degree, it may easily be detected by directing the patient to look at some small object eight or ten inches from the eyes, and then holding the hand before one eye. The covered eye, thus relieved from the effect of binocular vision, will deviate outwards. In some cases the preponderance of action is with the internal recti, and in others no two examinations made in different dogs will give the same result.

A spasmodic contraction of one muscle is more rare. I reported the following well-marked case some years ago (*Transactions of the Philadelphia College of Physicians*, '76):

Miss M., a little below par in general health, and of extremely nervous temperament, complained that frequently, and without special exciting cause, as at the dinner table, or at the opera, everything suddenly appeared double, and at the same time it was evident to her that she had lost control of the movements of one eye, which felt as if forcibly turned to one side. On closing the lids and pressing the ball for an instant, the symptoms would disappear. The acuteness of vision was normal, the balance of the external muscles correct, and refraction nearly unimtropic. The correction of an hypermetropia of 75 D. did not prevent the recurrence of the annoyance. Two other patients have complained of occasional transitory diplopia; in one case horizontal, and in the other vertical. These patients occasioned much anxiety at the time—one ten years, and the other about six months ago—but I have seen both recently, and they are in good health. In this connection may be mentioned two curious cases of non-ocular diplopia. In each the symptom persisted for several weeks, but was without physical cause, and disappeared without special treatment.

The case recently reported (*Med. News*) of hysterical mydriatis and paralysis of accommodation, occurring in one eye only, persisting for months, and finally relieved by mutual impression, is, I believe, unique. There can be no suspicion of deception here, as there is no known mydriatic whose effects can be made to disappear so promptly and completely as these symptoms did.

Paresis or spasm of the accommodation, is not unfrequent in neurotic subjects. The latter occurs usually, though by no means always, in connection with some case of refraction which acts as the exciting cause.

Retinal anæsthesia is a symptom which often occasions great annoyance to ophthalmic surgeons in testing refraction. Its subjects may at one moment have full asinity of vision, while at the next, with the same glass, it is very much diminished. They say that the letters become blurred and fade away after they have looked at them for a few seconds. The fact that this symptom persists under atropia shows that it is due, not to irregular action of the accommodation, but to exhaustion of the sensibility of the retina.

This condition of the retina makes the typical hysterical field of vision more restricted on the side that is recorded last in the testing. Such fields, the tracing used in discussion of which have afforded much entertainment to the curious, and rarely found the same at any two examinations. A patient recently presented himself at the Polyclinic with complete horizontal hemianopsia of the right eye only. There was complete blindness below the horizontal line. As the ophthalmoscopic appearances were normal, I suspected hysteria. At her next visit the hemianopsia had disappeared from the right eye and appeared in the left, still in the lower half of the field, but with an irregular border. It was several times transferred from one eye to the other, each time with a more irregular outline, and after a few weeks disappeared entirely, leaving the field in both eyes quite normal.

I have met with several cases of colored vision —blue streaks, yellowish, fogs, etc., of transitory character and evidently nervous origin.

Unsteadiness, or even apparent constant motion, of any object looked at, particularly print, occasionally occurs, and, not admitting of our physiological or optical explanation, may be classified as hysterical.

The most striking symptom, and the one that has naturally excited the most interest, is simulated blindness. For obvious reasons of expediency, this is usually monocular. At various times in the last ten or twelve years, I have reported four well-marked cases (*American Journal of Medical Sciences*, October, 1873; *Transactions of American Ophthalmological Society*, 1882 and 1884). Two were cured by exposure, and the others got well without ever knowing that they were suspected—possibly without having suspected themselves. One of them had a history of an attack of complete blindness, evidently of the same character, of both eyes occurring some time previously; and another such case has been reported by Dr. D. W. Agnew (*American Journal of Medical Sciences*, October, 1873).

Various tests have been devised for the detection of simulated monocular blindness. The one most used has been Grafe's pressure test. If the patient can be made to admit double vision when a prism is held before the well eye, vision with both eyes is proved. A very simple test suggested by Narlament may sometimes succeed, and, in his hands, has proved conclusive even as legal evidence. It displaces the axis of an eye by slight pressure upon the ball with the finger, and shows the suspected person two small dots on a piece of paper. If he says there are four, he is at once convicted. It must be remembered that these tests do not show how much the eye can see, and do not even prove useful vision. This can sometimes be done by an equally simple test suggested by Javal. He causes the person to read while a ruler is held three or four inches from the face, and directly in front of the nose. As part of the print is concealed from each eye by the ruler, it can be read continuously only by the use of both. An elegant but most difficult means of detection is afforded by the stereoscope (Schweigger, *N. Y. Med. Jour.*, Feb., '66). A test that has proved very satisfactory in my hands, is one that I first employed in a case reported in the *American Journal of Medical Sciences* for October, 1873. It consists in placing a strong convex lens before the well eye, and requesting the patient to read prints held considerably beyond its focal distance. If he reads at all, he must read with the blind eye, as the lens used in this way excludes distinct vision from the other as effectually as an opaque screen. Suspicion is less apt to be excited if the trial frames are used with a glass of low power in the other side. This simple test not only establishes the fact of vision, but enables us to determine its degree, and even to measure the accommodation. Three of my patients were detected in this way, in one case, at least, after a careful trial of the prism test had completely failed.

When blindness of both eyes is simulated, we are, of course, deprived of any optical means of detecting it. Etherization, as suggested in an article on malingering by Drs. Mitchell, Morshaw, and Keen (*American Journal of Medical Sciences*, October, '64) might prove successful. They found it so in deafness; and a case of hysterical deaf-dumbness was detected and cured in this way, some years ago, by Dr. Hutchinson, at the Episcopal Hospital.

These cases of hysterical blindness offer a curious and most interesting psychological problem. In some there is evidently a more or less deliberate deception, the result of an insane craving for sympathy or personal importance, or the motiveless freak of a disordered mind. Patients of this class are like the fasting girls who develop a superhuman ingenuity in the effort to make it appear that they live without eating. One of the patients referred to, after obstinately maintaining the deception for two years, abandoned it at once on detection. In the case of others, however, the charge of intentional deception can by no means so easily be maintained. Indeed a careful consideration of their other symptoms, their surroundings and their precious good character is almost enough to acquit them of acting a part. I have sometimes suspected that, though they read well enough unconsciously, they might not be capable of conscious vision with the affected eye; that there might be some mysterious derangement of the process of perception—a kind of negative hallucination, if such an expression could be allowed.

Though it is often a comfort, in doubtful cases, to remember that patients are not always what they seem, we cannot be too careful to avoid classifying a case as "nervous" until every possible organic change has been rigidly excluded, or supposing that we have nearly explained our patient's symptoms where we have called hysterical. It is too often true that, as Charlot says, neuroses bear within them the germs of material lesions, and that a disease, apparently nervous, may at any moment become an organic disease.

The ophthalmic surgeon meets daily with patients whose symptoms not many years ago might well have been classified as hysterical, but when the deeper knowledge gained by the ophthalmoscope and optical tests now proves to have a substantial basis for their complaints. Doubtless, the limits of this convenient term will be still further restricted, in proportion as our knowledge of pathology expands and our means of accurate diagnosis are extended.

The discussion on Dr. Harlan's paper was opened by Dr. Wm. F. Norris, who said he agreed with Dr. Harlan in regard to the importance of hysterical eye symptoms. He thought we should be on our guard in making the diagnosis of hysterical eye affections, particularly as central organic nervous disease was sometimes present without optic atrophy or other ophthalmoscopic appearances.

Dr. Wm. Thompson said he was much interested in Dr. Harlan's paper. He had, however, recently adopted a special method of treating hysterical eye affections. He said he had a case some months ago—a woman, who was blind in her left eye. The eye-ground was normal. She had frequent hysterical attacks. She was deaf in one ear, could not taste or smell, temperature abnormal, skin pallid, and there was loss of sensation in one-half of the body. About that time Burquism or metallo-therapy was brought to his attention. He tried it in this case, and found that iron was the metal to which she responded. He put her on this, and she gradually recovered. Her sight returned. This woman's circulation was poor on the left side. He thought that circulatory disturbances were often at the root of these hysterical conditions, and that the application of appropriate metals had a decided effect in such disturbances.

Dr. Wm. S. Little said, in no class of diseases does the physician feel the necessity of knowing how to handle all the "scopes," in order to exclude or recognize diseased conditions, as in these cases of hysteria. It has been my habit to classify these cases as follows: Cases of hysteria manifested in the eye alone, without any lesion in the eye or elsewhere in the body. Cases of hysterical manifestations in the eye, with lesions elsewhere in the body and none in the eye. The same, with lesions elsewhere and in the eye. Another class of cases with hysterical conditions in other parts of the body, due to ocular conditions. The first class of cases are rare, and a few kind words or a little electricity may suffice for treatment; but in the other cases, to decide on the proper plan of treatment calls for more discrimination, and these cases will go from physician to physician till they may even, as the author of the paper says, fall into the hands of the gentleman who divides the internal rectus.

Dr. Wm. Osler mentioned the case of a girl suffering from hysterical blindness in the London Hospital in 1873. Various tests were employed without success. One of the surgeons suddenly held up before her a large frog, which caused her to scream and roundly abuse the doctor, and immediately cured her of her blindness.

Dr. Charles K. Mills said that the tendency, during the discussion, seemed to be to regard all cases of hysterical blindness as due to unmitigated shamming. While simulation was an element in many cases of true hysteria, and while in what might be termed pseudo-hysteria it was the chief or only element, all cases of hysterical blindness, or of other hysterical sensory disorders, were not to be explained in this way. The activity of the cortical areas concerned with conscious perception was in abeyance in many of these cases. Sudden and unexpected impressions aroused these centres to action, and thus accounted for the sudden cures which were regarded as instances of detection of imposture. Imposture was present sometimes, but not always.

Dr. Louis J. Lautenbach said that in connection with the subject under discussion, he would briefly report the following case: A colored woman, 26 years old, a cook, strong, stout, and apparently healthy, presented herself, with a history of sudden loss of sight two days previously. Vision of her right eye was $\frac{5}{6}$; of left eye, counts fingers at one foot. It improved by glasses. The optic nerves were very slightly pale, the vessels normal. Both eyes were hypermetropic: the right slightly more than 2 D., the left somewhat more than 1 D. The left iris was dilated, not reacting to light. She was placed on iodide of potassium, 3 grs. in compound tincture of gentian, three times a day. On the 20th inst. her vision in the left eye was $\frac{4}{60}$; on the 22d inst., $\frac{5}{6}$; and on the 24th, $\frac{5}{4}$. She was profuse in her expressions of gratitude for, as she considered it, her wonderful recovery.

Dr. S. D. Risley said he felt indebted to Dr. Harlan for calling attention to the hysterical affections of the eye. He thought, however, that in ophthalmic practice it was peculiarly difficult to draw the line between hysterical symptoms and those having a distinct pathological basis or a physiological anomaly to explain them. The intricate anatomy of the eye was such as to render its proper performance of function especially liable to be influenced by many derangements of the general system. The state of health underlying the group of symptoms characterized by the term hysteria was especially prone to effect a disturbance of the visual function. The disturbance, however, differed from the ordinary manifestations of hysteria, in that the symptoms had a demonstrable physical cause, were beyond the control of the patient, and were constant during the existing state of health. Thus the feeble innervation of the hysterical patient was liable to diminish the range of accommodation and power of convergence, rendering the comfortable use of the eyes impossible. Again, the feeble or deranged circulation in the hysterical individual may set up a group of symptoms in the eye, presenting many of the characteristics of serious disease—which, however, are not simulated, but are, in fact, a relative glaucoma. While there is no absolute increase of intraocular tension, the normal tension of the eyeball is sufficient to interrupt the entrance of the feeble blood-stream into the eyes, and thus is set up the same group of symptoms as are present in actual increase of tension, viz., inadequate blood supply to the retina, contracted field of vision, impaired central perception, diminished range of accommodation, inability to use the eyes, particularly at a near point.

Dr. J. T. Eskridge presented a paper on, "A Case of Tumor of the Cerebellum with Monocular Hemianopia."

LEWIS BRINTON, M. D.,
Recorder.

—In a recent board of pharmacy examination, in reply to the question, "What would you do in case a prescription had been wrongly dispensed and the patient's life was endangered?" one reply was, "Go to Canada!"

EDITORIAL DEPARTMENT.

PERISCOPE.

Mental Overwork and Premature Disease Among Public and Professional Men.

Dr. Charles K. Mills, on March 19, 1884, delivered the ninth "Toner Lecture," choosing the above for his subject, of which the following is an abstract:

The longevity of intellectual workers in general is first considered, and is found to be above that of most other classes. The inferences and conclusions of the paper are largely based upon a study of sixty cases, especially collected by the author, cases in which loss of health or life had been mainly attributable to excessive brain work and brain strain.

These cases are arranged into two classes:

1. Men in political and official life, including cabinet officers, senators, representatives, department officials, governors, and candidates for office.

2. Professional men, including physicians, lawyers, clergymen, journalists, scientists, and teachers.

The actual occupations were: Cabinet officer, 1; senators, 8; representatives in Congress, 10; department officials, 5; governors, 2; candidates for important offices, 2; physicians, 6; lawyers, 7; clergymen, 2; journalists, 4; scientists, 6; teachers, 7.

Twenty-eight of the sixty, therefore, were men in political and official life, and eighteen of these were members of Congress.

The average longevity of men in the higher walks of political life in this country is regarded as considerably below the average of those who occupy similar positions in England. Comparing, so far as information was available, the ages at death of United States Congressmen and members of the English Parliament who have died since 1860, the following results were obtained: Fifty-nine United States Senators gave an average of 61 years; one hundred and forty-six United States Representatives, an average of 55 years; the average of both being, therefore, 58 years. One hundred and twenty-one members of Parliament gave the remarkable average age at death of 68 years.

Taking twenty-five of those that might be regarded as the most eminent American statesmen of the last one hundred years, and comparing their ages at death with those of the same number of the most distinguished English statesmen, the United States gave an average of 69 years, and Great Britain of 70—no practical difference. It was noticeable, however, that much of the best work of the great English statesmen—of Palmerston, Derby, and Beaconsfield, for instance—had been done at an advanced age, when most American public men have ceased to do anything important.

The lecturer considers some of the causes which lead to mental overwork and breakdown in American public and professional life, the early warnings of such overwork, and the forms of disease most likely to result.

The preparation, qualifications, and modes of life of American public men are discussed, and in some instances comparisons are made with English statesmen. The histories of many of the cases are briefly sketched. The special conditions which lead to overwork and its consequences among physicians, lawyers, journalists, scientists, and teachers, are presented at some length, with illustrative cases. The evil effects of competitive examinations and cramming, upon both teachers and scholars in our public schools, are also described.

The symptom-groups and diseases represented by the series of sixty cases are summarized as follows: Acute neurasthenia, 18; insanity, 10; phthisis, 9; diabetes, 4; cerebral hemorrhage, 4; Bright's disease, 3; posterior spinal sclerosis, 3; pneumonia, 3; bulbar paralysis, 1; angina pectoris, 1; erysipelas, 1; hepatitis, 1; enteritis, 1; glossitis, 1.

It was found almost impossible to present in orderly array all the symptoms which may be regarded as the indications of nervous exhaustion, and the probable precursors of premature disease from brain-strain and overwork, these symptoms varying somewhat with the individual—with his hereditary tendencies, his habits, and his surroundings. There were, however, certain common and positive evidences of existing or coming evil which were present in many cases.

Neurasthenia and lithæmia are discussed.

The most important conclusions are summarized as follows:

1. Intellectual work does not of itself injure health or shorten life, but mental overwork, particularly when associated with emotional strain, is a frequent cause of nervous break-down and premature disease.

2. The average longevity of men in the higher walks of public life is less in this country than in England. Politics here is not, as there, in the best sense a vocation; and our public men, in many cases, succumb in health, or fail to attain long life, because they go into careers unprepared, by inheritance, education, and training, for the severe demands to be made upon their powers.

3. Health and life are sometimes lost through forgetfulness of the fact that mental strain and overwork are particularly dangerous to those in middle life or advanced in years, who attempt brain-work and responsibilities to which they have not been accustomed. The effects of suddenly-imposed mental strain upon these classes are especially disastrous.

4. If not subjected to unusual mental or physical strain, public and professional men, as well as those in other walks of life, although afflicted with organic diseases, may live in comparative comfort, and able to do a moderate amount of work, for many years.

5. Among special causes of premature disease in public life are onerous and perplexing duties

on Congressional committees, the uncertainties and disappointments attendant upon public positions, the great strain to which candidates are subjected during political campaigns, lack of recreation, and social excesses and abuses at the National Capital.

6. Among physicians, lawyers, and journalists, the performance of brain-work under pressure of time, and under bad hygienic conditions, is a common cause of ill-health. Defective education and pecuniary harassments are also special causes of nervous break-down and premature disease among physicians and lawyers.

7. Comparatively few clergymen succumb completely to mental overwork, although many suffer from a mild but annoying form of neurasthenia.

8. The danger to the scientific worker usually arises from too intense and too prolonged activity of the mind in one direction.

9. The system of severe competitive examinations in vogue in many communities saps the health of both teachers and pupils. In our schools generally educational methods are bad, recreation is too much neglected, and unhealthy emulation too much encouraged. Education is not properly individualized.

10. Chronic neurasthenia is not common among men prominent in public affairs and in the professions. Such men are, however, sometimes the victims of a severe acute nervous prostration, which may result in serious organic disease.

11. Nervous strain is one of the causes of lithæmia, which is of not infrequent occurrence among public and professional men, but lithæmia and neurasthenia are not interchangeable terms.

12. The warnings of mental overwork and overstrain vary with individuals and circumstances; but certain psychical symptoms, and such physical symptoms as immobility of countenance, diminished resisting power, heart failure, sleeplessness, cervico-occipital pain or distress, and dyspepsia, are of most frequent occurrence.

13. Insanity, particularly in the forms of melancholia and paretic dementia, is sometimes developed by brain-strain and overwork. A family history of insanity is often present in such cases.

14. Phthisis, diabetes, and Bright's disease, are among other diseases most likely to be developed by mental overwork. Men in whose families phthisis is hereditary, should carefully guard against such overwork.

15. Overtaxing the mind and nervous system may be the exciting cause of almost any serious disorder to which chance, accident, imprudence, or infection exposes the individual.

16. Many diseases, not nervous in their seat or manifestation, are developed directly or indirectly as the result of mental and nervous strain, through exhaustion, impairment, or lesion of the centres of the organic functions.

Two Cases of Phlegmonous Pharyngitis.

The *Med. Press* tells us that Drs. Carrington and W. Hale White brought these cases before the Clinical Society in the belief that they belonged to a class which hitherto had escaped recognition. Patients were seized with intense dyspnœa, and tracheotomy might or might not be performed. The operation, however, appears to be entirely useless, the general, and not the local condition appearing to lead to the fatal issue. The first case was a man, æt. 46, who was admitted into Guy's Hospital in the early morning. He had been ill for seven days, somewhat remittently, some days being in bed, on others at work. He was admitted with laryngeal stertor, but no marked dyspnœa. He was placed in a tent with the steam spray and watched, but in the course of a few hours he died quite suddenly, before the house surgeon could be summoned. At the autopsy, all the soft tissues of the pharynx were œdematous, and on the right side, from the tonsil downwards for two inches, the mucous membrane was minutely injected and swollen with purulent œdema; yellow spots of pus pointed here and there. The same condition spread into the tissue of the epiglottis. On the left side the œdema was serous only. There was very little narrowing of the rima glottidis. With the exception of sub-pleural ecchymoses, there were no other noteworthy points discovered. The second case was that of a medical man, æt. 49, who was admitted into Guy's Hospital on November 10, 1884. He was suffering from dyspnœa, apparently of moderate intensity, but he himself came up to the Hospital for the purpose of having tracheotomy performed. He walked up to the ward. He was placed in a tent with a steam-spray apparatus. It was decided, after consultation with Mr. Clement Lucas, to perform tracheotomy three hours after admission. Just as he was about to be removed to the table, he was seized with spasm of the glottis, and the operation had to be performed in the bed. Artificial respiration had to be resorted to, and was so far successful that he began to breathe spontaneously. He was then seized with an epileptiform convulsion, and ceased to breathe again. Electricity, subcutaneous injection of brandy, and other means were resorted to, and he again began to breathe feebly. He revived so far as to take a draught of milk. All seemed well, and arrangements were made for having him under supervision, when he again ceased to breathe. Efforts were maintained to bring him round for a full hour, but unfortunately were not successful.

Mr. Cripps described the case of a girl admitted to St. Bartholomew's Hospital for gonorrhœa, who, after recovering from this disease, was one evening attacked with sore throat, succeeded by swollen face on the following day, which swelling extended to the opposite side, giving to the face a most peculiar and characteristic appearance. Dyspnœa set in, and quickly increased in severity. Anæsthesia was induced, when respiration almost immediately ceased, and tracheotomy being at once performed, artificial respiration was maintained, but unavailingly. Post mortem, no pus could be found, but the cellular tissue of the neck and pharynx was infiltrated with serum, of which a large quantity drained also from the incision made for tracheotomy during the attempts to set up respiration. Mr. Cripps considered the danger of spasmodic dyspnœa in such cases should preclude anæsthesia, and lead to the practice of making free incisions in the neck, and scarification of the interior.

Mr. Howard Marsh was impressed by the importance of such cases, which, though little rec-

ognized, had, he thought, been described by Sir George Porter, of Dublin, under the name of "acute cellulitis of the neck." He could recall three cases at St. Bartholomew's, not including the one mentioned by Mr. Cripps. One of these, treated by incisions, etc., was attended by sloughing and very fœtid discharge, and terminated fatally. The others were similar in character.

Dr. Goodhart thought the cases quoted by Mr. Marsh were not quite the same as those described in the paper. In the latter there was no diffuse swelling of the neck, nor was there at any time a great degree of severe dyspnœa. The condition of the pharynx was very peculiar; it was brawny, thickened, and the seat of commencing suppuration. The urine was albuminous. The interest of the cases lay in the consideration of their exact relations with diphtheria.

Specimen of Stomach from Case of Poisoning by "Rough on Rats."

To a recent meeting of the Philadelphia County Medical Society, Dr. Willard presented, for Dr. F. W. Coover, of Harrisburg, Pa., a specimen, with the following history: The individual from whom the specimen was taken, was last seen in health between one and two o'clock, Saturday morning, May 3, 1883. About seven o'clock a. m., she was found in an unconscious condition, with two gas-burners in the room unlighted and turned on. On the floor and sofa beside her was some material that had evidently been thrown off from the stomach. I saw her at seven and a half o'clock. She had been carried to her room, and was lying on her back in bed, her body extended full length. She was unconscious, and could not be roused. She threw her hands around, and pressed them over the abdomen. There was no spasmodic rigidity of the upper or lower extremities; she made no resistance when firm pressure was made over the stomach. Extreme pallor of face and upper lip. Mucous membrane of lower lip red and angry-looking. Pupils widely dilated, and not responsive to light. Eyeballs slightly congested. Feeble pulse—about eighty per minute. Respirations increased to thirty per minute. An involuntary discharge from the bowels had occurred. An emetic of sulphate of zinc was administered by the mouth, with but little difficulty, which was followed in a few minutes by free vomiting of a pint or more of slightly yellow-colored liquid, mixed with ropy mucus. The white of eggs, milk and whisky, was given soon afterwards, and retained. After the emetic had operated, there was no retching or vomiting. About noon, some movements were noticed that indicated returning consciousness, but her symptoms showed increasing heart-failure. She would roll from side to side, and restlessness increased. She would slide down in bed. She had more discharges from the bowels, but no urine was voided. By two o'clock, she became conscious, and answered all questions intelligently. She told me she had taken a teaspoonful of "Rough on Rats," dissolved in tea, shortly after midnight; that soon after taking it, she vomited, and from that time she had no recollection of what had since occurred. She complained of no pain, except dryness of the throat, which annoyed her greatly. She felt weak and sleepy, but wanted to get well, and took what was given her cheerfully. The stupor, however, increased, and she died comatose, without any convulsions or struggling, about fifteen hours after having taken the fatal dose. The post-mortem was made about fourteen hours after death. The body was that of a well-developed female, about twenty-three years old, weighing one hundred and forty pounds; *rigor mortis* well marked; all organs, thoracic and abdominal, healthy. Stomach removed, and contained about a pint of liquid, which appeared to be milk, eggs and whisky. The mucous membrane of the stomach was highly inflamed, particularly around the cardiac orifice, portions of it seeming to be detached. The small intestines were distended with gas, the mucous membrane having more than its usual color. The colon and rectum were collapsed and empty. The bladder likewise was empty.

Lead Poisoning of Obscure Origin.

Dr. Roberts Bartholow thus writes in the *College and Clinical Record*, February 1, 1885:

This woman, who has been living quietly in her own house, carrying on her ordinary domestic duties, noticed that the power of her hands was gradually failing. This continued, until now she has characteristic wrist-drop. There is no apparent cause, however, why she should suffer from lead palsy. That the wrist-drop is due to lead, is evident from the symptoms and from the presence of a well-marked blue line along the margin of the teeth in both the upper and the lower jaws. There have also been some disorders of digestion, as nausea, vomiting, and constipation. Lately, some loss of power in the lower extremities has been noted, showing that she is pretty thoroughly saturated with the poison. The urine has not yet been examined, but this will not be neglected; for if the diagnosis be correct, and there can be scarcely a doubt of its accuracy, lead will be found in the urine.

We have carefully investigated every point of which we can think in this woman's household arrangements, and we find no cause for the poisoning. One fact which is mentioned is, however, significant. Her husband is a baker, and over the furnace is a boiler filled with distilled water. The water from this boiler passes through a lead pipe, about fifteen feet long, and is used in the making of bread and in various ways about the house. It is well understood that the action of distilled water on lead pipe is peculiarly dangerous. The water of the city makes an insoluble coating on the interior of the lead pipe, which protects it from invasion. When lead is immersed in distilled water, the presence of lead dissolved in the water can be detected in a few minutes. This is a possible explanation of the poisoning in this case. We shall have the premises carefully examined.

The first thing to be done in the way of treatment is to shut off the supply of lead, and the second is to secure elimination of that which is present in the system. This is best accomplished by the use of the iodides and bromides, preferably the former. I shall avoid the iodide of potassium, on account of the action of potassium, and give the iodide of sodium. In order to reach de-

posits of metals in the tissues, it is essential to give massive doses of the iodide. Twenty grains, well diluted with water, three or four times a day, on an empty stomach, is the proper dose. Purgatives and diuretics are also to be exhibited. To act on the bowels, there is nothing better than Epsom salts, which, while being a laxative, will combine with any lead in the alimentary canal, and form the insoluble sulphate of lead. To increase the action of the kidneys, the patient will be ordered to drink freely of bitartrate of potassium lemonade.

Bullet Wound of the Lung.

Dr. C. B. Maitland thus writes in the *Lancet*, February 14, 1885:

At the present time, when pulmonary surgery is attracting a good deal of attention, the following case may be interesting, showing how comparatively slight the constitutional disturbance may be, consequent on a severe injury to the lung.

On September 7, 1884, Heera, a low caste Hindoo, in the habit of eating and drinking anything he could get, was admitted into the Staff Hospital, Deesa, with a recent rifle-shot wound of the chest. The rifle, a Snider, had been fired 150 yards to his front. The entrance was between the second and third ribs, two inches from the right edge of the sternum; the ribs were uninjured. There was no exit wound, but the fourth and fifth ribs on the same side were broken midway between the scapula and the spine, apparently a piece of each rib being knocked out. There was considerable shock, but scarcely any bleeding, so a little rum was administered. For ten days the man remained fairly comfortable, the tongue, at first furred, cleaning, and only occasionally coughing up a little rusty sputum. On the twelfth day his temperature was 99.5°, and on examination behind I found a swelling, fluctuating with the respiration, opposite the sixth interspace, in the same vertical line as the break in the ribs. On opening this, a somewhat flattened Snider bullet was extracted—it was lying outside the chest cavity—and about a pint and a half of offensive blood-stained pus let out. For three weeks the lung cavity was washed with carbolic solution (1 in 40), the fluid latterly returning nearly clear. The patient all this time suffered from no inconvenience, except when being injected the syringe hurt the broken ends of the ribs. Air passed freely through the posterior wound when uncovered, and once a slough two inches long came away. The morning temperature was always normal, the evening temperature ranging from 99° to 99.5°; respiration averaged 40, and pulse 96. On October 11 his temperature went up to 100°; so a drainage-tube was inserted in the sixth interspace, without making a fresh wound, and some offensive pus let out. Next morning the temperature and pulse were normal, and the respiration 32. In a week the injected fluid returned clear, and in a month the tube was finally removed. Now, December 17, the man is apparently in perfect health, fatter than before the injury, and the lung performing its functions. His recovery will seem the more remarkable to those acquainted with the prematurely aged and shrivelled appearance of indigent Hindoos.

Catarrhal Pneumonia with Diphtheria.

Before the New York Pathological Society (December 24, 1884), Dr. Van Santvoord presented specimens with the following history: The patient was a child, aged thirteen months, an inmate of Randall's Island Infant Asylum. It had been ailing for about one month, with diarrhœa occasionally succeeding a somewhat constipated condition, and the occurrence of bronchitis some time ago. Prior to the fatal illness there had been no examination of the lungs for several days. On Tuesday night the house physician was called to see the child, when the nurse told him that it had been ailing more than usual for a number of hours. He found that breathing was labored, and on examining the throat discovered a patch of false membrane upon the right tonsil. The child rapidly sank, and died within a few hours. Death occurred within twenty-four hours from the inception of the throat trouble.

At the autopsy the brain presented no very obvious lesion. A patch of pseudo-membrane was found upon the right tonsil, and the epiglottis and the trachea, to about its middle, were coated with false membrane, which, as usual, was somewhat adherent over the laryngeal surface and tonsil, but loosely attached in the trachea. The trachea and large bronchi were injected and coated with copious secretion of muco-pus. About one-third of the lower lobes of both lungs, and about one-half of the upper lobes were hepatized from catarrhal pneumonia. The heart presented no marked lesion, simply a post-mortem clot in both ventricles. The abdominal viscera were normal, with the exception that the solitary follicles were somewhat enlarged throughout the small and large intestines. From about eighteen inches above the ileo-cæcal valve to within two feet of the stomach there were six intussusceptions, but these were so frequently found at autopsies in children that they were regarded as having no special pathological significance.

Puerperal Eclampsia.

Dr. H. D. Fry thus recapitulates a paper on the subject in the *American Journal of Obstetrics*, January, 1885:

1. Puerperal albuminuria is the symptom of a pathological change, or of pathological changes, indicative of a predisposition to eclampsia.

2. The prophylactic treatment of eclampsia, therefore, includes measures adopted to prevent the occurrence of albuminuria.

These are, to improve the condition of the blood by the administration of tonics, iron, and a liberal dietary; and to relieve the renal congestion by attention to the functions of the skin, and by prohibiting the wearing of tight clothing.

3. The urine of all pregnant women should be examined for albumen after the fifth month of gestation, and earlier if any suspicions are entertained of renal complication.

4. With the recognition of the disease, treatment should be directed to its relief. This is divided into general, dietetic, and medicinal.

5. Obstetrical, to which are referred the graver cases of the affection. These, not having yielded to treatment, demand, by the urgency of their symptoms, prompt operative interference.

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DEGENERATION AMONG THE RESIDENTS OF LARGE CITIES.

Sanitarians will always teach that a life in the country, intelligently and properly carried out, is much more conducive to health, happiness (because it gives health to a great extent), and to longevity, than is a residence in a large city. The reasons for this are obvious. In the country are to be found all the elements of health, which, if intelligently and properly used, must necessarily redound to the physical, moral, and mental welfare of humanity. In large cities, on the other hand, the natural conditions of our surroundings are artificial (if we may be pardoned the Hibernianism), and it is only by constantly avoiding that which we are constantly tempted to do that we can escape the pitfalls which civilized life (so-called) in large cities has prepared for us at every point.

The very nature of a city life, that is to say, in a large city, is demoralizing to health, and the constant temptation to do that which is prejudicial to our physical welfare is very great.

When Rome became a great empire and the "*Mistress of the World,*" with her cities of unparalleled size, she, of course, had to encounter these temptations, and by them she was defeated.

When Maria Theresa sent her beautiful young daughter from Austria to mate with the young king of the then greatest country of the world, fresh from, and flushed with, the victories of the "little corporal," she was sending her to the mercies and vengeance of those who had been crowded into the "Queen City of the World," those who, leading artificial lives, had looked for something more than nature would give them, and who, ruled by those who were not content with nature, were unfit to govern natural beings.

So commenced the downfall of France; so occurred the downfall of Rome; so is now commencing the downfall of England. In the *Luncet*, Feb'y 7, 1885, we read as follows:

"The lecture delivered last week by Mr. James Cantlie on "Degeneration amongst Londoners," was received with approval not unqualified by dissent. The address, while true to the concentrated life of many large towns besides London

in its general tenor, might be said to be a diagrammatic, or rather a scenic, portrayal of that life. Some of its statements could hardly be received without a qualifying grain, as that, for instance, which declared a pure Londoner of the fourth generation to be impossible. It dealt principally, moreover, with the poorest class of town-dwellers, among whom the struggle for existence is seen in its rudest and acutest phase. This fact, no doubt, has served to heighten the color of the picture. At the same time, it must be admitted that the variation is rather one of shade than of contour, and arises not unnaturally from the necessities of illustration which belong to the subject in question. He who would find the centres of decay in a nation still on the whole robust and active, must seek for them at the points of social tension. The proofs of pressure, starvation, and atrophy, of vice and of brutal reversion, and of their results are all to be found here. The beginnings of the same process may be watched and often remedied in other grades; in this class, one frequently sees the beginning run on to its end in a single generation. Mr. Cantlie is not disposed to let this happen. He does not speak as a mere melancholic or idle image-breaker, but as a practical healer of abuses. His means of cure are two: fresh air and exercise. With regard to the vital importance of each of these to all normally formed persons there can be no question. The existence of various well-known societies and committees for the direct promotion of wholesome living is evidence enough to this effect. The subject for consideration rather is, how to bring these necessary luxuries —for so they must now be described—within reach of the many who have them not; and for the solution of this problem no answer which is not practical is worth having. Any such answer must of course affect the working of our whole civic system. Work, means, and food, the regulation of working time so as to allow of a fair measure of personal leisure and of sleep, are equally matters of the first significance, and may be said to form in many cases the standing ground required for the operation of all other remedial measures. We have good hope that the national mind, recognizing that there is degeneration and that it is curable, will continue to treat it with sympathy, as it has begun to do, and will direct upon it the fresh air of public discussion and the healthy exercise of a wisely corrective legislation."

These remarks are worthy of the gravest consideration. Rome was *Rome;* Paris was *France;* and London *is* England; just as our large cities *are* the *United States.* Among our wealthier classes, the growing tendency is towards a residence in the country; among the medium and poorer classes, the tide of emigration sets towards the large cities; *centralization* is the social as well as the business order of the day, and the people answer to this order. Let us think; let us reflect on the past history of the world; let us remember that physical and mental greatness must go hand-in-hand; let us remember that when Greece ruled the æsthetic world, she also owned the physical world; let us seriously ponder over this, and ask ourselves whether we do right to encourage centralization. The necessities of business (as conducted to-day) call for it; but will it conduce to our political welfare?

Notes and Comments.

The Treatment of Mastitis by Bandaging and Rest.

Dr. Philander A. Harris thus concludes a paper on this subject in the *Amer. Journal of Obstetrics* for February, 1885:

"From my experience in the management of the puerperal and nursing breast, I would form the following conclusions:

"1. That the breasts soon after delivery are strongly disposed to secrete milk, and will usually continue to do so for a few days, even if they be not nursed. If no attempt be then made to nurse or withdraw the milk, the secretion rapidly diminishes, and they return to their normal size and condition of inactivity.

"2. That, as a rule (to which there are probably few, if any, exceptions), the retained secretion does not undergo changes which convert it into an irritant fluid, but instead, it remains innocuous to the walls of the ducts and acini which contain it, and under favorable conditions is finally absorbed without trouble or embarrassment to either the normal or inflamed adjacent tissues.

"3. That, as a rule, the secretion of milk continues only while the natural stimulus, as nursing or other means of emptying the breast, continues to be employed. That the secretion, either in the normal or inflammatory condition, begins to abate when such stimulus is withdrawn, and will entirely cease after a week or two.

"4. That an abundant secretion of milk which has recently and entirely ceased as the result of a comp'ete withdrawal of stimulus, may be again recalled upon the reapplication of the child.

"5. That the presence of a decided inflammatory movement in the breast greatly diminishes secretion in the gland.

"6. That the sympathetic relation between the two breasts is almost, if not wholly, a sensory one. That neither the function of secretion nor the condition of the circulation in one breast is appreciably and directly affected by either physiological or pathological processes which may be going on in the other.

"Inflammation of the breast should be regarded as a progressive rather than a self-limited disease. It is attended by a train of pathological changes which become more severe and complicated until the conditions or circumstances which have produced them and which favor their continuance are removed.

"The inflamed breast should be supported in a well-applied bandage, and no attempt made to nurse or withdraw the secretion until the entire subsidence of the inflammatory movement.

"Sore and fissured nipples often produce inflammation of the breast. If, therefore, in any particular case we have reason to believe that the lesion will soon lead to the development of mastitis, or should it appear that a cure cannot be effected during the continuance of nursing, we shall be justified in the entire suspension of suckling through the affected part until a cure of the local trouble is established.

"The well-applied bandage exerts a salutary influence on the morbid conditions which affect the nursing breast, and it is also the most grateful measure of treatment."

A New So-called Specific Treatment for Typhoid Fever.

Dr. J. W. Hawkins thus writes to the *Kansas City Medical Record*, Feb'y, 1885: "It is said by medical writers of the present day that there is no known specific treatment for typhoid fever. We are gravely told that "the abortive plan by the use of calomel is the only treatment that can be considered ætiological or causal." To this statement I respectfully demur. If calomel aborts the fever in fifteen to twenty days, the bromide-of-potassium treatment will do it in seven to ten days. The bromide of potassium is a medicine (unlike calomel) attended by no bad results, and upon it we can confidently rely. It may be given in any and all stages of the fever—first, second, third, fourth, fifth, or sixth week. If you see the patient on the first or last day of the fever, begin at once to administer the antidote—bromide of potassium. In the whole metasyncritic cycle of remedies for typhoid fever the bromide of potassium stands at the head. It accomplishes what no other known remedy has done, when properly administered. It usually arrests the fever in from seven to ten days after beginning its use. If the treatment is commenced at the beginning of the attack, five-grain doses administered every three hours during the day only, and repeated daily, will usually be sufficient. But if in the last stage, from fifteen to forty grains will sometimes be required. In the last stage of a very severe case, when death seemed almost inevitable, I gave more than two hundred grains in twenty-four hours, producing no gastric disturbance whatever. The patient recovered. Hence from this and other like cases I am led to believe that we have a specific for enteric fever.

The truth of this has since been verified in the treatment of ten additional cases, the fever in every case being arrested in from seven to ten days. I think I am not talking too forcibly when I say that bromide of potassium is as much a specific for typhoid fever as the sulphate quinia is for (ague) intermittent fever.

Attempted Suicide.

The following case, which Dr. Levi Clease reports in the *Louisville Med. News*, is worthy of note:

"May 30, 1879, Joseph Gaume, a barber, while assisting in preparing for burial the victims of the tornado which had swept over Irving that day, stole an engagement ring from a young lady's finger.

"July 21, 1879, while under the influence of a prolonged bout of hard drinking and of fear of personal injury at the hands of the friends of the aforesaid young lady, he attempted suicide by cutting his throat with a razor. Ten minutes at least must have elapsed before Dr. H. H. Tenney and myself reached the place where he lay wallowing in a pool of gore, and bleeding like a stuck pig. He had made several gashes across his throat, below the cricoid and thyroid cartilages. One of the tracheal cartilages was almost severed, and hung by a filament from the wound. The common carotid artery on the right side was cut half off. With every expiration the blood would fill the yawning wound and bespatter the surgeon.

"Dr. Tenney at last succeeded in introducing his finger under the artery and lifting it up from

the bed, while I tied both the distal and cardiac ends. The radial pulse once more became discernible, and the gash in the throat was sewed up. The next morning the patient, with a large pocket-knife, stabbed himself in the third and fourth left intercostal spaces. He aimed at the heart, but struck too high. The nurse heard the hiss of the escaping air. These wounds were closed by adhesive plaster. The neck wound had to be reclosed by sutures; no extra precautions were taken, and July 30th the patient was discharged. I heard that he committed suicide the year after by throat-cutting."

Cocaine in Minor Surgery.

If current reports are to be credited, there is apparently no limit to the beneficent action of cocaine. In the *Lancet*, January 31, 1885, Dr. J. Herbert Simpson reports the following case:

Miss B——, whose breast I removed for scirrhus in February, 1884, found a week ago that two small nodules of the disease, each about the size of a pea, very hard and painful, had appeared near the cicatrix of the operation wound. The nodules were about three inches apart. On January 23 I injected three minims of a four per cent. solution of the hydrochlorate of cocaine on either side of one nodule; and, finding that after waiting ten minutes there was no pain on pinching the part, I cut down and removed the nodule, having to make an incision an inch and a half long. The patient felt absolutely nothing of the operation until I inserted the sutures, and that, she said, was hardly to be called pain. After closing the wound, I injected another three minims near the second nodule, and operated in the same way; and although a little pain was felt, owing, I believe, to my not having waited sufficiently long for the third injection to take effect, it was very trifling; and from beginning to end, this operation under cocaine was a decided success. There were no after-effects from the drug, and both wounds are healing by first intention.

How Syphilis may be Contracted.

The following case, which Dr. Amos Carter reports in the *Indiana Medical Journal*, is worthy of note, as it carries with it a very wise suggestion to prison authorities. To give his own words, the doctor says:

"I have had a case of syphilis that is of interest only from the manner in which it was contracted and the location of the chancre. The patient was a boy aged 15 years. He was admitted to the Indiana Reform School for boys, October 21, 1884. About the first of November he complained of soreness in the anal region, and examination revealed a chancre about one-half inch from the opening of the anus. He said that he had been confined in jail with a 'man who was in for attempted rape,' and who had syphilis; that it was contracted 'by using the same closet the man did.' By close inquiring, the boy acknowledged that the demon with whom he was confined had induced him to consent to sodomy. This revealed the means and source of contagion.

"The case got along reasonably well; the rectal wall was somewhat thickened, but he will make a very good recovery.

"Such occurrences as this being possible, our county jails ought to be so arranged as to keep boys separated from older and more hardened criminals."

Inoculation from Malignant Pustule.

From the Paris correspondence of a foreign exchange we note that a patient was lately admitted into the Lariboisière Hospital with a malignant pustule above the eyebrow. He was employed in the slaughter-houses of La Villette, and killed and prepared for sale sheep imported from the south of Russia. The malignant character of the pustule was evidenced by intense fever, 107° Fahr.; pulse 120, and considerable œdema. The subparotid glands were much swollen. Two days before the patient was admitted into the hospital, he complained of itching of the forearm and back of the hand. The œdematous area was cauterized, and the scars were removed until the tissues bled. The patient's condition improved from day to day, until all danger disappeared. Nevertheless, the glands continued hard and swollen. M. Proust, who treated the case, wished to ascertain if the blood was infected when the patient was admitted. Artificial cultivations from the blood on broth were made, but were sterile. A drop of the purulent serum taken from the pustule rendered the broth fertile, and bacteria appeared in it. Guinea-pigs inoculated from this cultivation died from charbon.

Malformation of the Female Sexual Organs.

Dr. B. Bernard Browne thus concludes a paper on this subject in the *Jour. Am. Med. Ass.*, November 8, 1884:

1. Nearly all the malformations of the female sexual organs, previous to puberty, result from arrest of development.

2. As the upper and lower portions of Müller's

ducts develop independently of each other, we may find the ovaries developed without the uterus, and *vice versa*.

3. Perfect development of the external genital organs and the mammary glands does not preclude defective development of the vagina, uterus or ovaries.

4. Entire absence of the uterus or the ovaries can only be determined by post-mortem examination or by laparotomy.

5. A patulous urethra is not the result of sexual intercourse through this organ, but is caused by arrest of development.

6. In congenital atresia of the vagina, a patulous urethra is the rule; in acquired atresia, it is the exception.

Cocaine in Chordee.

After a while we will hear about "*Cocaine in Cancer;*" but, as universal as would seem to be its therapeutic application, if all reports are to be credited, yet it is our duty to give publicity to all reports of its use that bear some evidence of authority. An anonymous writer thus discourses in the *New England Med. Mo.*, February 15, 1885:

"I have had two cases recently of chordee, accompanying gonorrhœa, which have yielded easily to the soothing influence of an injection of hydrochlorate of cocaine. In the first case I had exhausted almost everything in my efforts to relieve. It was one of those obstinate cases with which we meet sometimes, and which seem to defy all treatment. I gave this man an injection of 10 drops of a four per cent. solution, mixed with 30 drops of water. After this injection was introduced, I worked it along the urethral canal until the mucous surfaces were bathed in the solution. I then allowed it to remain several minutes. From this time out, I had no further trouble with either the chordee or the patient. The second case yielded a like result."

The Treatment of Acute Dysentery.

The *College and Clinical Record*, Feb'y 1, 1885, says regarding acute dysentery, Prof. DaCosta says, the best treatment is ipecac., not to exceed gr. xx every two or three hours, guarded with opium, and he has very remarkable results from this plan. It is especially good in puerperal dysentery, as Prof. Bartholow has pointed out. The opium plan (gr. ss every two hours) is good. Next is Rochelle salts, one ounce in divided doses in the first twenty-four hours, and less thereafter. This does not preclude the simultaneous use of small doses of opium. Both the ipecac. and the saline purgative plans should be abandoned in two days if no change in the condition of the patient is seen; they are rapid or valueless in their action. Next comes bismuth subnitrate, gr. x–xx every two or three hours. The use of ice water injections three or four times a day was originated by him some years ago; they are very valuable. Sinapisms are useless and blisters harmful.

Headaches.

Our readers will remember that some time since we published a paper suggesting, and giving good reasons for so doing, that "*Sick Headache*" (so-called) was really due to an affection of the eyes. It called forth much discussion at the time, but comparatively little interest was manifested in the subject. We are now glad to note that Dr. T. Lauder Brunton, in his lectures on "Disorders of Digestion," (*London Med. Times*, January 24, 1885), said that there "was only one so-called minor ailment connected with digestion requiring mention, viz., headache. Headaches were usually dependent either upon the presence of decayed teeth, or of some irregularity in the eyes, more especially in the quality of focal lengths between the two eyes, or astigmatism.

"As persons who were subject to headaches in their youth grew older, bilious headache was very apt to be replaced by giddiness; and this change occurred about the time when the eyes were beginning to get a little presbyopic, and the person began to find the need of spectacles for reading."

Glycerine for Dryness of Tongue and Thirst in Febrile States.

From a foreign exchange we learn that Surgeon Major S. K. Cotter, in a recent number of the *Indian Medical Gazette*, relates the case of a patient suffering from enteric fever who was awakened every ten minutes by the dryness of his tongue, which was parched and covered with sordes. The tongue was painted with glycerine frequently, and the result was that at the first trial the patient slept almost comfortably, waking up about every two hours with the tongue feeling dry, but not really dry to the touch; after renewed application of the glycerine he at once slept again. In six other cases it has been tried and found satisfactory. Surgeon Major Cotter does not attempt to decide whether it acts by increasing secretion from the mucous membrane, dissolving the sordes, or making an artificial coat-

ing. But, in whatever way it acts, its benefit is vouched for when the tongue is parched during any disease.

Drunkenness Treated by Bleeding.

Dr. Cranny reports the following case in the *Med. Press*, February 18, 1885:

T. T., a middle-aged man, who had been employed in a spirit-cellar, where he obtained and drank a large quantity of whisky, was brought to the hospital in a dying state from the effects. The breathing was stertorous and labored, the face swollen and livid, and the pulse intermittent (with each gasp would give a couple of beats and then a long intermission), and pupils insensible to light. With the stomach-pump a large quantity of spirits was removed, sinapisms put on his legs and neck, and strong coffee injected into the stomach; but as he gradually became worse, and finding that life was ebbing away, Dr. Cranny opened the median cephalic vein. Immediately after the blood commenced to flow, the respirations became easier and the heart's action steadier, and as soon as about ten ounces had been taken, consciousness returned. He left the hospital perfectly well.

Grindelia Robusta in Cough.

Dr. John F. McCann writes to the *Med. Age*, that such has been his experience with grindelia robusta that he has come to include it in all his cough mixtures, when the seat of the irritation is the middle or upper portions of the air passages. In asthmatic cases its action is simply perfect, and its influence over the condition which he thinks obtains in asthma, was beautifully illustrated in a case which had its origin in strychnia, administered in medicinal doses. The patient, according to his theory, had a tendency to asthma, which the strychnia stimulated into activity. The grindelia afforded almost immediate relief from the attacks, although he is not aware that there is any physiological antagonism between the two drugs. It is its property of relieving the irritability of the bronchi which, doubtless, makes grindelia robusta the valuable drug that it is in coughs.

Hysterectomy.

The French correspondent of the *Med. Press* (February 18, 1885), notes that M. Terrier brought under the notice of his colleagues two cases of hysterectomy (vaginal), one of which was for cancer of the neck of the uterus, and did very well. M. Desprès pronounced himself skeptical as to the alleged nature of the tumor, and he could not understand how the totality of the organ could be removed *per vaginam*. M. Berger said that abroad surgeons have commenced to look with distrust on total ablation of womb for cancer, for the affected glands are more difficult to seize and extirpate in this region than in the axilla. M. Polaillon considered that it was not at all necessary to have recourse to an operation so grave, as cancer was generally limited to the os. In reply, M. Terrier, although admitting the justice of some of the remarks, thought that the operation might be legitimately tried, on account of the extreme gravity of the affection.

A Diuretic Mixture.

Dr. A. L. Hodgden writes to the *Maryland Med. Jour.*, February 28, 1885, that he has found the following combination:

℞. Extr. apocynum cannabinum, fluid, ʒj.
Extr. belladonnæ, fluid, ♏xij.
M.

valuable as a diuretic given in the dose of six drops every hour until effect is produced, or eight doses have been taken, especially in œdema from pregnancy. He has given itas directed above, or in œdema from pregnancy, six drops of the same three times a day for three or four days; some water should be taken with each dose. The belladonna, outside of any other action, seems to be very valuable in checking the secretion of the skin, which materially aids a diuretic action. He has never seen the combination before mentioned in print, nor has he heard of its being used by any person excepting himself.

Sodium Ethylate in Lupus.

From the *London Med. Press*, (Feb'y 18, 1885,) we learn that at a recent meeting of the Medical Society of London, Mr. Startin showed several cases of lupus vulgaris which had been completely cured by the application of sodium ethylate. It will be remembered that Dr. B. W. Richardson drew attention to the value of this substance in the treatment of mucous polypi nasi in an early number of the *Asclepiad*, and it has now been employed with considerable success in a large number of cases of disease. In one of Mr. Startin's cases the lupus growth had involved the alæ of the nose and the adjacent cheeks to a considerable extent. Another case exhibited at the same time was almost entirely cured by erosion and careful scooping out of all the lupus tissue, only two operations having been required to effect the result.

Urban Myopia.

Still daily do we hear of some additional argument against city life. Now, in the *Brit. Med. Jour.* (February 7, 1885), we read that in a recent address at the Society of Arts, Mr. Brudenell Carter drew attention to a form of myopia to which the dwellers in populous places are peculiarly subject, and the *Journal* says:

"There is no doubt that town-life is conducive to short sight. There is not one man in ten who, in walking about a crowded town, does not habitually keep his eyes fixed upon the ground, or, at any rate, upon a very near point. Visual accommodation for near distance becomes habitual, because it is a protective necessity against collisions and other dangers of the streets. Hence dwellers in towns should take frequent walks abroad, so that, by gazing on distant objects, they may preserve their eyes by a healthful relaxation of visual tension."

Amenorrhœa and Gonorrhœa.

In the *College and Clinical Record*, February 1, 1885, we read as follows:

For amenorrhœa dependent upon debility, Prof. Parvin advises the following, speaking very highly of its utility:

℞. Ferri sulphat. exsiccat., gr. j.
Aloës, gr. j.
Olei terebinthinæ, ♏j. M.
Ft. pil.
Sig.—One ter die.

According to Prof. Bartholow, the following, in gonorrhœa, after the acute stage, is efficacious:

℞. Zinci sulphat.,
Plumbi acetat., āā gr. viij.
Ammonii chlorid.,
Aluminis, āā gr. iv.
Aquæ rosæ, f. ℥j. M.
Sig.—As an injection.

Sponge Left in the Abdomen.

A most excellent caution is that taught by the following note from the *Louisville Med. News*:

Dr. C. H. Briddon, at a recent meeting of the New York Surgical Society, the proceedings of which are published in the New York *Medical Journal*, reports a case in which he operated for removal of the uterus by abdominal section. The patient died on the sixth day, and when the post-mortem was made a sponge was found encapsulated with lymph lying in the right iliac fossa.

[At the last meeting of the American Gynecological Society a number of cases of this kind were reported, and they show how careful operators should be to follow the plan of Keith: "Count the sponges before operating, and be sure when you are through that you have them all."]

Muriate of Cocaine in Gout.

Dr. D. D. Davidson, of this city, informs us that he has in a few cases had most satisfactory results from the use of this drug in gout. He uses a two per cent. solution, which is poured into the palm of the hand and then rubbed over the painful part. It only gives temporary relief, but this is a great desideratum and rather unusual, as so far this local anæsthetic has not had the credit of having any effect on the skin. He also tells us that when the pain returned it was less severe. He, too, has found this drug useful in earache.

CORRESPONDENCE.

The Hygiene of the Aged.

EDS. MED. AND SURG. REPORTER:—

Such is the heading of an article in the MEDICAL AND SURGICAL REPORTER of January 24th, by some one reporting "Notes from the Philadelphia Hospital," embodying the utterances of Dr. Horatio C. Wood, Professor of Materia Medica in the University of Pennsylvania. Dr. Wood is high authority with the profession generally as well as with the large class of students to whom he lectures. If there be a responsible position in the world it is that of medical teacher. How fatal is the propagation of error by those who educate pupils to go forth to take charge of the lives of others! Nearly sixty years ago I was deeply impressed by the earnestness and conscientiousness of Professors James, Physic, and Coxe, when lecturing to their classes. No joke ever passed their lips; nothing that had the shade of obscenity in it was ever spoken by them. In the years which have come and gone since that time, it has ofttimes gratified me to listen to some other surgeons and physicians who have filled those chairs with the same high regard for propriety of speech and deportment. In speaking thus, I intend no reflection on Prof. Wood, for I do not know what his habits are. I only refer to the feelings manifested by the gentlemen of whom I have spoken as resulting from their realization of the great responsibility which attached to them as teachers.

Dr. Wood knows full well, that, in the Society of Friends, to which nearly all his relatives belong, and in the principles of which he was carefully reared, abstinence from intoxicating—I ought to say alcoholic—drinks is the rule, and that in that society there is greater longevity in proportion to numbers than in any other society of any kind. The three oldest persons who within the last decade have passed away from the neighborhood in which I reside were members of the Friends' Meeting; one had nearly reached his 97th year, the other two were in their 95th. They were all free from the use of alcohol in any

form. One of them was my eldest brother, who, I can well believe, had not taken during the last seventy years a single teaspoonful of alcohol in any form. A sister, also, reached the age of 85, and was free from its use through all her long life. For 44 years I have wholly abstained, and yet almost measure years with this dear old man —"too good a patient to let die." I wish he had not said *that*. It was too light for the occasion and the presence.

How harmful is such teaching in view of the wretchedness wrought by the use of alcohol in its various forms!

Dr. Wood's class numbers hundreds of young men, and if he should not have urged upon them the use of alcohol on any other occasion for any disease during his lectures this winter, even then he has done them great harm. He has impressed on these young men a belief that alcohol is a nutritive, life-preserving agent, and as conscientious practitioners they will feel bound to advocate its use. They will not wait till people are 75. Even Dr. Wood's rule is "75 or less," and the less has no bounds. Every one who complains of weakness or chronic infirmities will be considered a fit subject for this great health maintainer. To the young doctor of 22 or 25 years, persons of 50 or 60 are quite old, and he will urge on the latter the use of alcohol—the great health preserver—"in some form at meal time." It will not then be taken merely at meals—a good drink of it in some form at bed-time will make him feel good. Many years ago I had a friend who was told that a little brandy after each meal would be useful to relieve his dyspeptic symptoms; he tried it, and boasted to me of its great value. He was, indeed quite triumphant; thought "doctors know but little about dyspepsia." He was just my age. I warned him against it. He has been dead many years. It was a common belief with his neighbors, "that he drank too much." It was evident to all who saw him, and yet he was a vestryman in his church, and had other important reasons for resisting injurious habits.

Dr. Wood speaks truly when he cautions against exposure to high winds—and especially to sudden change, when very warm, to a cold, chilling atmosphere—but it is nearly as applicable to the young and the middle-aged as to the old. Dangerous as such exposure is it is much less dangerous to life than a change from sobriety to the use of alcohol "in some form at meal time." He presents the case of Rev. Dr. Beadle to show the danger of exposure to a chilling wind when the body is warm and not protected by a "buckskin jacket." Dr. Beadle was a noble man, and the mention of his name and death, impels me even at the risk of being called a hobbyist, to turn away from Dr. Wood for a moment, to express my extreme regret that there was not, in the aristocratic quarter in which Dr. Beadle resided, a physician who could have saved him even if he were suffering from a congestion of the lungs. Dr. Beadle's was not an exceptional case —hosts of physicians and other professional men in Philadelphia and in New York have died from congestion of lungs, pneumonia, and pleurisy affections so very amenable to treatment. If, therefore, instead of advising the young men as he did, Dr. Wood had spoken to them of the lamentable fact that the profession in Philadelphia is powerless to relieve a person affected as Dr. Beadle and many other men eminent in the profession have been, he would, by this humiliating confession, have awakened, in their vigorous young minds, a desire to know why these diseases have borne away so many of our medical brethren within the last few years. In their inquiries for the solution of the question they would doubtless have discovered that the use of alcohol "in some form," substituting a more rational treatment had much to do with the loss of so many useful, brilliant men. It is greatly to be regretted that though, since the death of Bishop ——, who came from New York in perfect health, to Philadelphia to perform official duties, and died in three days from congestion of lungs, or pneumonia, and so many other men of high standing in our profession have died from the same affection—as reported by their physicians—that we have never once been informed in relation to the treatment. A few years since a man of about 70 years, sitting on the front seat of his carriage, rode eight miles facing the wind, and though pretty well clad, became somewhat chilled. That night he got pain in his chest and a feeling of oppression. A physician was sent for, and he pronounced his case a congestion of the lungs. At once he set about treating him by giving freely of alcohol in the form of milk punch, and in other forms. This strong man lived but two days, at least less than three. Now, what share of the result belonged to the disease and what to the treatment we can only surmise. How it was in Dr. Beadle's case we know not.

It has often occurred to me that physicians owe much to the soothing influence of the clergy. They never charge us with erroneous practice. However much we may have erred, however disastrous our treatment, when they come to officiate at the closing ceremonies they say, in all sincerity, "The Lord giveth and the Lord taketh away; blessed be the name of the Lord." All of us have had occasion to witness the calming effect of *this* on the family, taking away all blame from us, and placing it, I was going to say, where it belongs—elsewhere. Let us hope that if we cannot be informed of the treatment of Dr. Beadle, that we may be favored by some one with the mode of treatment in the case of the Bishop, or some one of the many others who have fallen by the way before or since the death of Dr. Beadle. We ought to know something of the treatment which prevails in Philadelphia and New York, where alcohol is so great a favorite. Returning from this digression, allow me to present another kind of proof that alcohol is not needed in order that persons may reach advanced age.

To-day the *Friends' Journal* of February 19 (yesterday) came to me, and in looking over the list of deaths—the deaths of Friends gathered from all available sources are published weekly—it occurred to me that it would be fair to take it as an evidence of the truth of what I have said about the longevity of Friends—people who, in advanced age especially, do not use alcohol in any form. In this list of the twenty-four persons whose ages are given, one was in his 94th year, one 90, one 88, one 87, two 84, one 79, one 76,

three 74, one 73, one 71, one 69, one 67, two 65, two 64.

Here we find that of these 24 persons 16 had passed their 63d year. Thirteen had passed 70, 5 from 80 to 90, and one went beyond 90. The combined ages of the 24 amounted to 1,646 years. I had not then thought of comparing this list with the list in the Philadelphia *Ledger*. But on the 21st I sent for that paper and took from it the first 24 notices of deaths, of whom the ages were given ; and here is the record. Only six passed the 61st year—of these six, one was 85, two 75, one 72, one 71. The combined ages of the 24 gave a total of only 916. Taking the next 24 whose ages we published, only six passed the age of 62 ; and of them one was 85, one 82, one 75, two 68, one 65, and one in the 62d year. The ages of the whole 24 footed up only 850 years. These results were so surprising to me that I turned to Friends' Journal again. Not being able to find the one of the previous week, (the 12th), I fell back on the 5th of the present month. In it there were only 23, of the list, whose ages were given. Of these 4 were between 6 and 9 years. Of the remaining 19, twelve were past 72, and of these one was 96, one 92, the others 90, 88, 87, 83, 80, 75, 74, 73, respectively. Their united ages 1,335.

Lest some might think I am prepossessed in favor of Friends, it may be well to say that I never have been a member of that Society, but during my whole life have lived among and mingled with them, and can speak with confidence, of their great temperance. Many of them could have given such testimony in relation to their "clearness" of the use of alcoholic drinks as was given in the recent reply of Dr. Michener. And here it just occurs to me, why should not Dr. Michener, if experience be worth anything, be a better judge of what is proper for old people than Dr. Wood? The former was an *eminent* practitioner before the latter was born. The late Professor Joseph Carson, many years ago, said of Dr. Michener, that "Dr. Ezra Michener was one of the best medical writers with whom he was acquainted." A more earnest, conscientious practitioner, and a more careful observer at the bedside of the sick, would be difficult to find. He has passed through old age. He has practiced his profession for fifteen years since he was seventy-five, and, in these latter years, especially with the aged, and knows full well that alcoholic drinks were not needed for himself, or for the aged people who confided themselves to his skill and knowledge. When he got a severe congestion of the lungs and pneumonia at the age of 87 years he did not resort to the health maintainer, alcohol; but was strong enough to bear the loss of a large amount (℥xv.) of blood, and to convalesce without stimulants. How I wish that some of the eminent men to whom I have referred, Dr. Beadle among the others, could have had the benefit of his great skill and experience.

Dr. Wood has probably not reached his fiftieth year; how comes it then that he knows the conditions of old people? Dr. Michener has gone away beyond his "seventy-five years or less," and knows how strong and healthy a man may be at that age and even much beyond it. Now, in my eighty-first year, even my testimony ought to have some weight—not so much as a professor's, of course, when I say that I go abroad every day, without regard to rain or cold, without fear of congestion of the lungs, that I eat well, sleep well, and use no alcohol in any form.

The belief that alcoholic liquors are never needed for persons in health—and are seldom, if ever, necessary in disease—is not a new one. Numerous medical teachers long since testified against their use. The eloquent and enthusiastic Professor Chapman, of the University of Pennsylvania, affirmed "that the evils of *using* them are so great, that the emptying of Pandora's box was but the type of what had been experienced by the diffusion of these liquors among the human species." I have great respect for Professor Wood, but an abhorrence for all utterances which have a tendency to promote the use of alcoholic drinks in any form. HIRAM CORSON, M. D.

Conshohocken, Pa.

NEWS AND MISCELLANY.

Is Deafness Hereditary?

Dr. R. Mathison, Superintendent of the Ontario Institution for the Deaf and Dumb at Belleville, writes to the Toronto *Mail* a long letter, in the course of which he says: "In Professor Alexander Graham Bell's paper transmitted to the United States Congress upon the formation of a deaf mute variety of the human race, a synopsis of which appeared in your columns a few days ago, he says: 'While we cannot at present arrive at any percentage, it is certain that the proportion of deaf mute offspring born to deaf mutes is many times greater than the proportion born to the people at large.' As far as Ontario is concerned, Mr. Bell is very much astray in his theoretical conclusions. In the Provincial Institution for the Education and Instruction of the Deaf and Dumb, at Belleville, under my charge, there are the histories of 661 mute children, who are now or have been pupils since its establishment. I am acquainted with the parents of about 300 of the children, and have made inquiries during the last five years concerning many of the others. Up to this time I have been unable to find that any of the parents were or are deaf or dumb. A few of the grandparents, however, were mutes. A considerable number of deaf and dumb persons in the province are intermarried and have children, and in every case that has come to my knowledge the children can hear and speak. There may possibly be a few instances of hereditary deafness in the province that have not been reported, but they are so very few in proportion to the number of deaf and dumb persons, and form such a small fraction of the population, that an evolution of a distinct race of mutes need never be feared. Of the 661 above noted, 262 were born deaf, the others lost their hearing by fevers, measles, colds, etc."

A Wonderful Memory.

L. F. Gordon relates the following anecdote (*Druggist's Journal*, February, 1885,) of the late Dr. Addison Alexander, of the Theological Semi-

nary at Princeton, which well illustrates the remarkable power of memory possessed by him:

On one occasion a large class of forty or fifty were to be matriculated in the seminary in the presence of the Faculty. The professors and the new students being all assembled in a large hall, each student in turn presented himself before the professors, had his credentials examined by them, and if the same proved satisfactory, entered his name in full and his residence in the register. When the matriculation was complete and the students had retired, there was some bantering among the professors as to which of them should take the register home and prepare from it an alphabetical roll—a work always considered rather tedious and irksome. After a little hesitation, Dr. Alexander said: "There is no need of taking the register home, I will make the roll for you," and taking a sheet of paper, at once from memory, without referring to the register, and merely from having heard the names as they were recorded, he proceeded to make out the roll, giving the names in full, and giving them in their alphabetical order. This was a prodigious feat of pure memory; for in order to make the alphabetical arrangement in his mind, before committing it to paper, he must have had the entire mass of names present in his mind by a single act of the will.

A Sad Instance of Brutality.

Nurses are only human beings, and are oftentimes very much tried, but we can offer no excuse for the following which is stated by a correspondent of the *British Medical Journal* to have occurred in the hospital at Necker: A patient, aged 48, had been for some months under treatment for a disease of the heart. When in bed he suffered such agonizing pain, that the medical officer ordered that he should sit in a chair instead of going to bed. The male nurse who attended to him wished to force him to leave his chair and go to bed; the sufferer reminded him of the direction given; but the nurse was so persistent, that his victim cried out, "Do you want to kill me? I shall not go to bed." A brutal answer was given, and, with the aid of another nurse, the patient was forced to lie down in his bed. The nurses left the ward, and, two hours later, found him dead in his bed. The nurses notified his death without mentioning any of the circumstances attending it, but the other patients in the ward made them known to the physician when he went his rounds. Both nurses have been arrested, and will be tried for manslaughter.

The Risks of Sword-Swallowing.

This exceedingly dangerous trick, or performance, of jugglers, had recently a most disastrous termination in England. The *London Med. Press*, February 4, 1885, says that there died at the Newington Infirmary a few days ago a man whose trade it was to perform feats of jugglery, among which was included the sword-swallowing trick. He had, two days before admission to the infirmary, attempted to perform the customary trick, when he was attacked with severe pain and vomiting of blood, attended with great difficulty in breathing and swallowing. After being submitted to treatment in the infirmary, no improvement took place in his condition, and he died a few days after the accident. This unfortunate victim to sensationalism adds one more to the long list of those whose end is precipitated by attempts to gratify the public taste for morbid kinds of entertainment; and, preach as we may, it is certain that such exhibitions as sword-swallowing, leaping from great heights into nets, turning somersaults in mid-air, and trapeze exercises under circumstances of imminent danger, will be insisted on by the uneducated thousands who make up the classes on whom music-hall proprietors depend for an income. Nor is it merely the lower orders who supply the audiences ready to applaud each fresh risk incurred by "sensation artistes;" many of their number occupy a much higher rank in social life; but it cannot be concealed that it is the intellectual equality such people exhibit with the half-savage rough of the Casino that is mainly answerable for the unseemly association of the two classes in pursuit of amusement.

The Chloroform Habit.

It seems that one of the curses with which human nature has been afflicted is a desire for some form of intoxicant. In the *Brit. Med. Jour.*, (Feb'y 7, 1885,) we read that inebriety is by no means confined to alcohol. Though in England inebriety from opium and either has attracted comparatively little attention, the habit induced by these and other narcotics has been described by observers in other countries. The latest development of excess comes from the United States, in the shape of a record of several cases of addiction to chloroform. In one instance, the *habitué*, a very abstemious physician so far as alcohol was concerned, accidentally experienced the pleasurable sensations of intoxication from this agent, and gradually lapsed into confirmed nightly inhalation of chloroform, extending over three years. By this time, his regular dose was three drachms. Change of scene and of circumstances caused a break in the habit; but the presence of chloroform brought about a relapse. Shortly afterwards, a struggle for emancipation from the slavery to chloroform was begun, which, after extending over two years, was finally successful.

A Chemical Analysis of Food.

The report of a chemical analysis of pieces of bologna sausage, submitted to him by Health Officer Veale, of this city, has been prepared by Professor Leffmann, and turned over to the department. The report was made with reference to cases of poisoning resulting from the eating of the sausage which it was believed had become so stale as to promote the formation of alkaloids. It says: "Such cases are not uncommon, and, while as yet not clearly elucidated, there seems to be no doubt that in such complex articles of food a decay takes place somewhat different from ordinary putrefaction, during which alkaloids analogous to strychnia and atropia are formed. To these bodies the poison is due. I have examined a number of

specimens of sausage, cream puffs, and roast meat, which had caused marked symptoms of poisoning, in all of which no metallic poison or parasite could be found. I have no doubt that the explanation given above is applicable to the present case."

The analysis was made because of reports of several cases where illness had resulted from eating smoked sausage.

Dr. Klein on the Cholera Bacillus.

During the present excitement over Dr. Koch's reports on the cholera bacillus, it is well, in order that undue enthusiasm may not run away with our judgment, to note that at a recent meeting of the Royal Society of London (*Lancet*, February 7, 1885), Dr. Klein read a paper on the Relation of Bacteria to Asiatic Cholera, and showed clearly that the "comma bacillus" of Koch does not behave differently in cultivation from the similarly-shaped organisms found by Lewis in the mouth, and by Deneke in cheese. On many other points, *e. g.*, as to the presence of the organisms in the intestinal mucosa, the action of acids upon their development, etc., Dr. Klein has arrived at results entirely opposed to those of Koch; and he explains some of these divergences by the difference in time at which the post-mortem examinations have been made. The English Commission made the examinations as early as possible after death, and found that the "comma bacilli" increased in number *pari passu* with the length of time that elapsed between death and the examination.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended February 21, 1885.

Battle, K. P., assistant surgeon. To proceed to Pittsburgh, Pa., for temporary duty, February 19, 1885.

RESIGNATION.

Heath, W. H., passed assistant surgeon. Resignation accepted, as tendered, by the Secretary of the Treasury, February 14, 1885.

PROMOTION.

Kalloch, B. C., assistant surgeon. Promoted and appointed passed assistant surgoon by the Secretary of the Treasury from March 1, 1885, February 19, 1885.

Northern Medical Association.

The Northern Medical Association of Philadelphia was organized in 1847; disbanded in 1883; re-organized December 12, 1884. The following are the officers for 1885:

President—Dr. Philip Leidy.
Vice President—Dr. H. C. Paist.
Recording Secretary—Dr. Joseph S. Gibb.
Corresponding Secretary—Dr. J. Henry Smultz.
Treasurer—Dr. John T. Walker.
Censors—Drs. Henry W. Rihl, Silas Updegrove, Robert J. Hess, Charles P. Stout.

Apparent Death.

The *Weekly Medical Review* (February 21, 1885), says that the Paris correspondent of the Jour. Amer. Med. Association narrates an incident of Dr. Canepa, who, in the cholera epidemic at Genoa was supposed to be dead. The preliminary funeral ceremonies were performed, but when the undertaker took the coffin to the door he was met by the "corpse" with the inquiry why he was left so long without his tea and rum. A consultation is said to have resulted in the hypodermic intravenous injection of salt solution. He died, but we trust the consultants did not refuse their confrere the privilege of his own simple remedy.

Items.

—M. Gavoy, of Paris, has invented an instrument for determining the degree of mobility of the brain in the cranium; he has shown it to the different scientific and medical bodies. It is termed a kinesiometer.

—In the *Medical Record* we read that dilute phosphoric acid is a pleasant acid in fevers, and dissolves phosphates in the urine quite as well as the other mineral acids. It is well given in lemonade or syrup of raspberries.

—Dr. Henry T. Helmbold, who has been more widely advertised than any other patent medicine man, proposes, now that he has been released from the Norristown Insane Asylum, to re-establish his business in New York city.

—A correspondent of the *Weekly Drug News* writes of a patient who wanted "some more of them pills, but would like them in some other form, as it was such a trouble to pick the shells off." He had been taking quinine in capsules.

—The *Centralblatt für die Medicinischen Wissenschaften* appears under new editorship. Professor Kronecker has been called to Bern, and Drs. M. Bernhardt and E. Salkowski now edit this journal, assisted by Dr. Senator, whose name still appears on the title-page.

—A new chair of Pharmacology has been established in the University of Königsberg, to which Professor Horst Meyer, of Dorpat, has been appointed. It has been formed by a division of the chair held by Professor Jaffe, who will continue to lecture on Hygiene and Medical Chemistry.

—Talleyrand, the Prime Minister of Napoleon, was disliked by Madame de Stael. It so happened that Talleyrand was lame, and Madame cross-eyed. Meeting one day, Madame said: "Monsieur, how is that poor leg?" Talleyrand quickly replied: "Crooked, as you see."

—In the *Russkaia Meditzina*, No. 36, 1884, p. 740, Dr. Sher, of Proskuroff, Podolsk government, used alum, 8 grains two or three times a day, in 31 soldiers with intermittent fever of fresh standing. In 21 cases cure followed. In the remaining 10 alum failed, and cure was subsequently obtained by quinine.

—To the Carlisle Medical Society (January 8, 1885), Dr. Douie showed an infant with congenital deformities. There was extreme talipes equinovarus on both sides, and also flexion of both wrists, with extension of the first phalanges, and flexion of the second and third phalanges.

—To the New York Obstetrical Society, Dr. Hanks reported, with regard to a case of punc-

ture of the gravid uterus in the performance of ovariotomy, followed by miscarriage after the patient's convalescence and discharge from the hospital, that he had lately delivered the patient of a well-developed child at term.

—The patient's gratitude to his doctor is part of his disease. It is most declared when the fever is highest, cools off during convalescence, and entirely disappears with the complete return of health. The physician who is in the habit of letting his bills run to the end of the year, is furnished with frequent illustrations of this fact.

—Dr. F. Peirce states in the *Brit. Med. Jour.* that he had to open a mammary abscess. The organ was exquisitely painful. He injected twenty minims of a two per cent. solution of hydrochlorate of cocaine. In ten minutes the whole gland was anæsthetic, and he was able to make a free incision without causing any pain.

—Dr. G. L. Magruder, of Washington, D. C., reports in the *Am. Jour. of Obstetrics* successful results from the use of "chloride of gold and sodium" in pertussis. His formula was:

℞. Auri et sodii chlorid., gr. ij.
Aq. destil., ℥j,

with directions to give five drops every two hours, commencing as soon as possible.

—About six thousand persons are believed to have died during the cholera epidemic at Naples, Italy. The notoriously bad hygienic conditions there existing doubtless made the epidemic so fatal. Into many of the streets the sun never enters, so narrow are they, and the buildings so high. Many of the people live in cellars, thousands live huddled together, ten or fifteen in a single room, without distinction of sex, with the most miserable food.

—To cut short the paroxysm in whooping-cough, Prof. DaCosta recommends the inhalation of—

℞. Sodii bromid., gr. xx.
Ext. belladonnæ fluidi, gtt. ij. M.

Sig.—The spray to be inhaled just prior to occurrence of the paroxysm.

In the interval, quinine should be pushed up to the point of tolerance.

—Dr. Mortimer Granville complains that a prescription of his for gout has been wrongly copied from a contemporary into the public journals, drachms being substituted for ounces, and that he has reason to believe that much harm is being occasioned thereby. Dr. Granville rightly observes that such proceeding is irregular, and we should imagine that any journal thus acting was intentionally playing into the hands of quacks.

—Dr. V. Poulain writes to the *Brit. Med. Jour.* that he has always found a tablespoonful of fine bran in bread and milk, night and morning, to be the best method of combating constipation in children, and it is very useful in conveying to the child silica and phosphates. The bran should be allowed to soak in the milk, and then, when warmed up to a little below boiling point, it should be poured on the bread.

—The sewerage scheme of Paris devised by Dumont contemplates the construction of a drain about 100 miles long from the city to a covered reservoir below Herblay, and the establishment of pumping stations at Eragny and Serifontaine. The cost of construction is estimated at $12,000,000. For nine months in the year almost all the sewage will be utilized for the purposes of irrigation; and it is expected that the pumping stations will be fully maintained by the sales of the sewage.

—Unquestionably there is a degree of eager, ceaseless absorption in exciting work, involving immense mental, moral and physical exertion, which is capable of breaking down the strongest and best constitution. But unless my own experience is altogether exceptional, such instances are rare, and the vast majority of cases met with are those in which an amount of work and excitement entirely consistent with the maintenance of good health, if the laws of health were duly observed, is rendered destructive by reckless disregard of these laws.—*Dr. Pepper's Address before the Med. and Chir. Fac. of Med.*, 1884.

—A curious question submitted by the Archbishop of Lyons to the Society of the Holy Inquisition, has just been decided by that body. It was to this effect, "Is craniotomy an operation which could receive the sanction of the church? or in other words, given a woman in child-birth who is found to be unable to bring forth, from causes derived from a peculiarity in her own formation or that of the child, and that it be evident that one life must be sacrificed for the other, which life should be spared?" The Society was unanimous in pronouncing in favor of that of the child.

OBITUARY NOTICE.

ELLERSLIE WALLACE, M. D.

Dr. Ellerslie Wallace, formerly Professor of Obstetrics and Demonstrator of Anatomy at Jefferson Medical College, died at his residence 1130 Spruce street, in this city, March 9. He had been in failing health for two years, but his condition had not been considered at all critical until two weeks ago.

Dr. Wallace was born in Philadelphia, June 15, 1819, and was of Scotch descent. He was educated at Bristol College, and graduated as a civil engineer. Later he began the study of medicine with his brother, Dr. Joshua Wallace, at that time Demonstrator of Anatomy at Jefferson College. In 1843 he received his diploma. A few years later he became resident physician of the Pennsylvania Hospital, and held the position three years. He left the hospital to take the chair of Demonstrator of Anatomy in Jefferson College, where he remained for sixteen years, and only resigned in 1862 to take the higher chair of Obstetrics and Diseases of Women and Children. This latter he resigned two years ago on account of ill health. Dr. Wallace had been elected successor of Professor Gross as dean of the college, and this he also resigned two months before his professorship. He was a prominent and active member of the Philadelphia County Medical Society and the College of Physicians. As a class lecturer he had few equals in the United States. His family consists of a wife and one son. The latter is a graduate of medicine.

THE

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Original Department.

Lecture.

ANTISEPTIC SURGERY.

Address Delivered at the Yearly Meeting of the Schuylkill County Medical Society by the Retiring President,

J. C. BIDDLE, M. D.,

Surgeon-in-chief of the State Hospital for Miners in Ashland, Pa.

Mr. President, Members of the Society, Gentlemen: It is the time-honored custom for the retiring president to read an address on a subject connected with medicine. As I have and intend to make surgery a specialty, it becomes me to speak of this noble branch of our science and art. Immense progress has been made in every direction, operations are to-day performed of which our forefathers scarcely dreamed, and human life is now frequently saved, where our ancestors were satisfied with insuring euthanasia to the sufferer. But, if we look at the causes which thus advanced surgery, one factor, the discovery of one man seems especially to have made this progress possible. It is to antiseptic surgery, or Listerism, as it is called after him who first introduded it, we owe most of our advancement. Since its employment, the once dreaded peritoneum has ceased to be feared; the cavity of the knee-joint is no longer the "noli me tangere" (don't touch me), and the mortality rate shows fewer and fewer cases where death sets in from exhausting suppuration.

But if antiseptic surgery can produce such results, why is it, you may justly ask me, that at least in this country it is, comparatively speaking, but rarely employed? First, let me tell you that the same remark concerning England and the continent of Europe cannot be truthfully made. Nearly all of the most celebrated surgeons of our age in Europe practice Listerism, more or less modified; and even in our country certain operations, especially those in which death from prolonged suppuration, pyæmia, or septicæmia is mostly to be feared, are no longer performed without antiseptic precautions.

There are probably three causes which, united, have prevented many American surgeons from adopting Listerism and strictly adhering to the rules of aseptic surgery. First, all those factors which mainly give rise to sepsis are less to be feared in this country than in Europe. The people in general here are better nourished, and we seldom see such degraded, and impoverished, and badly-fed individuals as represent the type of the poorest classes in Europe. With us, as a general rule, people are cleaner, and the miserable and filthy hovels that are too often the abode of the poor laborer in Europe, are here but rarely met with.

A second cause of our neglect of Listerism may be found in the fact that the details of it are but imperfectly known; and the third cause is explained by the difficulty with which all the minutiæ of aseptic surgery are performed. Certain bandages and apparatus essential to the strict execution of real Listerism, have to be manufactured wholesale to be at the disposal of the surgeon. This want, however, has of late been supplied, and most wholesale druggists, or the instrument-makers of our large cities, keep continually on hand all the paraphernalia needed for the faithful compliance with aseptic surgery. The difficulty of its execution only, therefore, remains,

and I hope to convince you that this should be no objection to the adoption of Listerism in hospital as well as in private practice. If a surgeon has practiced strict antiseptic surgery but a few times, he will discover that it is connected with very little trouble; and if you consider that the first antiseptic bandage applied in a case may often be left for weeks undisturbed, you will agree with me that strict Listerism does not increase the labors of the surgeon, but indeed decidedly diminishes them.

As all the necessary appliances can, therefore, be procured, it is easy to become an expert in aseptic surgery, and as it relieves the surgeon from a great deal of superfluous labor, every operation ought to be performed according to the rules of Listerism, and considering the fact that it immensely enhances the chances of recovery in many cases its adoption ought to be obligatory, and the death of any case, if it could have been prevented by perfect asepsis, should be justly ascribed to the criminal negligence of the surgeon.

To do my share in spreading the knowledge of antiseptic surgery, is the object of this paper, and I was determined the more to discuss it as my position as surgeon of the State Hospital for Injured Persons of the Anthracite Coal Region of Pennsylvania, gives me the opportunity of showing to you its practical working.

At the boundary between the animal and vegetable kingdom, there is an immense class of microscopical beings, and to-day it is still doubtful whether they are animals or plants, though the majority of investigators seem to incline to the belief that they belong to the vegetable kingdom. Nevertheless, they are known by the name of animalculæ. They form two large subdivisions: hyphomyceti and schizomyceti. They are distinguished from each other mainly by their mode of propagation, the first so-called fungi or moulds multiplying by the aid of spores, while the second do so by division. The first give rise to diseases of the skin and mucous membrane, as favus, aphthæ, etc., but those of the second class which are pathogenic in their nature, make their ravages within the body.

These last have received the generic term of bacteria, on account of their rod-like shape. Many of these are peculiarly formed, and this difference in their shape has given rise to a classification which divides them into micrococci, having a circular shape; bacilli, short or long rods; bacteria proper, shortest rods; vibriones, wavy shape; spirilli, short stiff screws; and spirochætæ, long flexible screws.

How rapidly they multiply when brought into favorable surroundings, you may judge from the following statement, taken from an article of Prof. Engel's in the Medical and Surgical Reporter. "Of one single bacterium, which during the first hour has divided into two, these during the next in 4, and within 3 hours in 8, after 24 hours have already become $16\frac{1}{2}$ millions, after 2 days $28\frac{1}{2}$ billions, and after 3 days 47 trillions. If in this manner the development could go on unimpeded, the breed of bacteria springing from one germ of about $\frac{1}{500}$ mm. in length and $\frac{1}{1000}$ mm. in thickness, within less than five days would completely fill all the oceans of the earth; and the descendants of one single micrococcus, whose weight is so little that 1600 millions of them weigh but one grain, would within three days reach the enormous weight of 15 millions pounds."

Scientific researches have proven beyond a doubt that certain species of bacteria are the pathogenic element of infectious diseases. While all authors do not agree that the bacteria are the original cause of some of these maladies, the following facts are undisputed. No putrefaction, no decay, would take place after death were it not for septic bacteria. Then, there are many chemical processes which are produced and kept going solely by these microbes. The change of sugar into alcohol and carbonic acid, the so-called alcohol fermentation, is due to the activity of the yeast plant. And when fermented fluids become acid, the change of their alcohol into vinegar is caused by a bacterium. When milk gets sour it is induced by a rod-shaped bacterium, while the green and blue color of pus must be ascribed to another variety, and the discoloration observed on potatoes, cheese, boiled eggs, etc., in moist air is brought about by a micrococcus. It is not my intention to enter into a detailed description of these bacteria, which give rise to acute or chronic infectious diseases, as typhoid fever, etc., but I will at once mention the discovery of the pathogenic elements of that great group of septico-pyæmic diseases. Klebs has proven that micrococci cause the septic cysto-pyelonephritis; Rindfleisch and others have demonstrated and cultured those causing septicæmia and pyæmia; Lucke and Koohn, those inducing osteomyelitis, and Nepven, Oeth, Billroth, etc., those of erysipelas. The cause of septic endo-carditis, so long puzzling physicians, has been shown to be due to micrococci colonies.

These septic bacteria develop only under certain conditions—in the healthy being they cannot propagate. They abide in parts of the organism

which have lost most of their vitality, or have become mortified, and in which these microbes cause putrid decomposition, whose products, if absorbed and carried into the blood act as poisons upon the system.

Possessing the knowledge of these facts, Prof. Lister, in Edinburgh, conceived the happy idea to prevent completely the entrance of septic bacteria into wounds. He correctly reasoned as follows: If no decay, no putrefaction, no formation of pus, no septic process of whatever kind, can take place in a wound without the presence of bacteria, all that is necessary to insure the absence of such processes, was the exclusion of the bacteria. The next question was, Whence did the microbes come? They are contained in the atmosphere. Either the air must be completely excluded from a wound or be made aseptic. That the air really was the carrier of these pathogenic bacteria has not only long since been proven by experimental research; but surgical experience has also clearly demonstrated the correctness of this view. It is a well-known fact if we cut the integument and tendon with a knife, that the chances of complete recovery are not very good, besides the risk, that intense suppuration accompanies the cure. But if a tendon is divided subcutaneously, so that air cannot enter, the wound heals kindly, with great rapidity, and without the formation of pus. Formerly, the use of a trocar in thoracentesis for pleuritic effusion generally changed at once the serous extravasation into empyema; since the introduction of the aspirator needle this occurrence is not quite so frequent. Further, encephalitis following an injury to the skull, even if a splinter of the diploe pierce the tissue of the brain, is not apt to end in abscess, but if there is a breach of continuity in the skin and bony covering of the skull, so that the air has free admittance to the inflamed focus, an abscess is almost sure to follow.

These and other undeniable proofs demonstrated beyond a doubt the fact of the air being the carrier of the pathogenic bacteria. The air had, therefore, to be excluded from a wound. But while this might, perhaps, be done after an operation is over, the difficulty was to prevent admittance of the air while the operation is in progress. That could not be achieved; the next best thing, therefore, had to be done, namely, to make the air aseptic. And to insure the complete exclusion of all bacteria, everything coming in contact with the wound had also to be disinfected, as, for instance, the hands, instruments, sponges, needles, thread, ligatures, bandage, and so on. In this manner, Lister reasoned and at once commenced his method of procedure, which has made his name immortal, and the prognosis of many a case more favorable than it would otherwise have been.

To make the details clearer, let us follow Prof. Lister in his performance of an amputation. By the aid of an atomizer, containing a six or eight per cent. carbolic acid solution, the air of the room in which the operation is to be performed is kept aseptic. This spray is kept going during the whole time occupied, namely, until the wound has been securely closed by the proper bandage. Then the instruments, sponges, and needles are brought in, all lying in a four per cent. solution of carbolic acid. Then the skin all around the part where the operation is to be performed is made completely aseptic by a ten per cent. carbolic acid solution.

With his disinfected hands, the operator now grasps the knife, takes it out of the aseptic fluid and while the carbolic acid spray passes over the parts, he makes the first incision. When the soft parts have been divided—the spray continuing to play over the wound—the saw is taken out of the aseptic fluid, and the bone, with the periosteum turned back, severed. By the aid of a thoroughly-disinfected tenaculum or forceps each artery is then grasped and a catgut ligature, which up to that time had also been kept in the disinfecting fluid, is applied to the vessel. When finally, each artery has been secured in the same manner; and while the spray still passes over the wound, the flaps are coaptated as perfectly as possible, and after that the sutures applied, disinfected needles and aseptic catgut serving for this purpose. To prevent an accumulation of discharges of the wound, and through it a separation of the well-coaptated flaps, a thoroughly-disinfected drainage-tube is inserted between the flaps at the lowest depending point to allow a free exit to any discharge. Then the parts are cleansed by the aid of aseptic sponges and a mild carbolic acid solution. Over the whole is applied the protective, generally a pliable piece of aseptic caoutchouc, and then a gauze bandage saturated with an eight per cent. carbolic acid solution, and the stump encircled by it, taking care not to compress the drainage-tube. A common disinfected bandage surrounds the whole.

Though there are sometimes more details followed in the application of Lister's dressing, the one described is that now generally adopted. But no matter what kind of bandage and how applied, the following principles, which are so masterly

explained in Nancrede's papers* must be observed.

First there must be no admittance of septic air to the wound, while the operation is progressing. This is prevented by the spray; but as the spray has been used previous to the operation, and as the skin near to the seat of operation had been disinfected, the spray need not touch the wound, as it otherwise would act as an irritant. For the same reason, the protective is applied to prevent direct contact of the acid with the healthy, fresh wound.

The next important principle is the perfect coaptation, but the stitches must cause no tension, and there must be room for the discharges to escape; for as Lister himself says, one single tense stitch may cause suppuration, though no malignant pus.

The drainage must be perfect, for the only agent likely to disturb the position of the flaps is an accumulation of the secretions. The fluid pouring out from a fresh wound is very prone to putrefy, and it should have, therefore, free egress.

Perfect disinfection is of paramount importance, for what good would all other precautions do if we do not exclude septic material? But remember, for this end the contact of the disinfectant with the wound is not needed, but rather harmful. If the operation is proceeded with as described, no septic substance can have touched the fresh wound-surfaces. After their perfect coaptation, therefore, it is only necessary to surround it with substances which prevent the passage of bacteria through them. This is done by the carbolized gauze and bandages, and the protective caoutchouc simply prevents the contact of the carbolic acid with the wound.

Finally, promotion of granulation is the last indication. By performing the other details, the parts have only to be kept at complete rest, and granulations will spring up. They do so from 48 to 72 hours after, and Von Brun follows Lister's method only thus far. As soon as granulations have well formed, he removes the bandages and treats the wound by the so-called open method. It is well known that granulation prevents the absorption of septic matter; the danger of this for any wound ceases with the appearance of granulations.

*Chas. B. Nancrede. An Analysis of the Principles upon which Depend the Modern Methods of Treating Wounds. Reprint from Archives of Medicine, June, 1881. New York, G. P. Putman's Sons; and idem, Some of the Facts of Listerism, ibidem, August, 1882.

Von Brun has reported some very favorable results from his method, but not so favorable as Lister and Volkmann, the latter following strictly Lister's method. Lister allows the bandage to stay untouched as long as the odor from the wound is sweet, or no morbid symptom, as chills and increase of temperature, indicate the entrance of septic material or the accumulation of pus in the wound. If no untoward symptoms occur, the dressing is permitted to remain until the healing of the wound, and Lister is of the opinion that this method can always be followed, and the same result will be obtained if none of the important principles of his dressing were omitted; or, in other words, if no loop-hole was left open for the entrance of septic matter, if coaptation was perfect, drainage unimpeded, and no irritant was left in the wound.

To show you some of the results of perfect aseptic surgery, let me give you some figures of Volkmann's clinic.* His wards were in such an unsanitary condition that he was at the point of demanding their closure. In the winter of 1872 and '74 he tried to save 16 comparatively simple cases of compound fracture, and 12 died rapidly of pyæmia. From 1873 to 1877 he tried Listerism in 75 complicated fractures, 73 of whom recovered.

Mr. J. Wood, of England, says: "A few years ago I believed that I had never seen a patient recover after the opening of a lumbar or psoas abscess with a free incision. I could not remember one who had not died before the opened abscess healed. Of late years I have known such abscesses opened with complete impunity under antiseptic treatment, and it seems there is nothing but this treatment to account for the difference of results."

Bruns, Berdeleleen, and Billroth performed 377 amputations by the old method, with a mortality of 29.18 per cent., while of 321 amputations performed by Busch, Schede, Socin, and Volkmann by the aseptic method, only 4.4 per cent. died.

Mr. Lister has frequently opened joints affected with hydrarthosis impending suppuration, joint abscesses, etc., in all, 109 cases, with but three deaths, all from tubercular meningitis. Volkmann gives thirty-one wounds of joints and two incisions into joints, thirty-three in all, of knee, wrist, elbow, and foot, with no death, and twenty-one compound fractures entering joints treated aseptically, with no death.

It would occupy too much time to augment

*Nancrede, ibidem.

these statistics. Those who wish more information regarding them, I would refer to the excellent treatise of Nancrede, above mentioned.

The results obtained by the aseptic method are such as to surprise every surgeon. When the opportunity is thus given to us to protect almost certainly the patient against pyæmia and septicæmia, it is my opinion that we are willfully negligent by not employing the only procedure promising success.

One great surgeon after another adopts Listerism, and whoever has once tried the method is sure to continue it. Once accustomed to it, it becomes easy of execution, and in consequence of the almost utter want of local after-treatment greatly facilitates the labors of the surgeon.

Let me hope, fellow-members of the Schuylkill County Medical Society, that I have succeeded in contributing my mite to make aseptic surgery popular with you. For your own interest, and still more for that of suffering humanity, let me pray you to adopt a method which, being based upon scientific principles and well-established truths, makes out of every wound, no matter of what part of the body, a subcutaneous one. By its aid we will drive such diseases as hospital gangrene, erysipelas, pyæmia, and septicæmia forever from the wards of our hospitals, and we will be able to guarantee to every patient a freedom from those special dangers which were the cause of the high mortality so often observed in these institutions.

Communications.

LACERATION OF THE RECTUM, BLADDER, AND PERITONEUM, BY A FOREIGN BODY THROUGH THE ANUS.

BY TOM. M. THROCKMORTON, M. D.,

Of Derby, Iowa.

Every surgeon has experienced grave results following the slightest injury, also he has observed perfect recovery from what appeared a serious if not fatal injury. For instance, a man is thrown from a horse, falling upon his head: he gets up immediately, feels sick at his stomach, vomits, and in a few moments feels all right; rides home, goes about his usual vocation, experiencing nothing unusual. In a few days—perhaps a week—after over-eating or exertion, he takes a severe headache, etc., convulsions, and dies. Again, a man is thrown out of his wagon, the wheel passing over his head, fracturing his skull and frightfully mangling his body: he recovers. I wish to give the notes of a case that came under my observation where it did not look possible that the man could survive—the character of the injury, the kind of instrument, and way the force was applied, the parts and organs complicated, all indicated an unfavorable prognosis.

August 9, 1884. Jas. Kelley, æt. 22, single, Irish descent, while engaged in running a threshing machine, jumped off the separator on to a manure or dung-fork which was sticking into the ground, the handle passing into the anus and up into the abdominal cavity fourteen to sixteen inches, as estimated by the bystanders, who are intelligent men, especially the gentleman who pulled the fork out, who is a man of *close* observation and marked intelligence—his estimate (by measuring) being that the handle *passed fully fifteen inches* up the bowel; he said "the handle showed the depth as plainly as if he had tried to measure the depth of water in a rain-barrel," the pants being woolen, without lining and *well* worn. The handle was 51 inches long, 4½ inches in circumference around the top, which was smooth and rounding, middle 3⅜ inches.

On my arrival found patient in the barn lying on a pallet of straw, countenance blanched, and of a ghastly pallor, suffering intense griping, colicky pains, retching, restless, thirsty, feeble pulse, extremities cold, had passed large quantity of blood per rectum. Gave morphia, brandy, and quinine. Made a bed in a spring wagon, and took him to his home about 1½ miles distant.

A digital examination per rectum disclosed on the anterior part of the gut a longitudinal rent or laceration about two inches in length, and near three inches above the verge of the anus.

My friend, Dr. C. Fitch, of Chariton, having over thirty-five years' experience in surgery, was called in consultation; and upon his arrival, about seven or eight hours after the injury, the patient had reacted and was resting quite comfortably.

Passed catheter and drew about eight or ten ounces of turbid or bloody urine. Patient was then placed in lithotomy position, after being anæsthetized by my brother, Dr. C. M. Throckmorton. We had a variety of anal specula and dilators; these failing, we contemplated the division of the sphincter ani. However, Dr. Fitch, with Sims' duck-bill vaginal speculum and volsella forceps, succeeded in bringing down the bowel sufficiently, and I closed the rent with two interrupted sutures of silk. Bowels syringed out, and patient put to

bed. Then remembering the words which I heard fall from the lips of our lamented, venerable, and learned Prof. Gross: "Gentlemen, *in peritonitis, put the bowels in a splint, and do it with opium.*" I gave morphia sulph. in gr. ss. to gr. j. doses to relieve pain, tranquillize the system, and to prevent the peristaltic action of the bowels; relaxing the abdominal muscles by raising the shoulders and placing pillows behind the knees. The entire abdomen was covered with cloths wrung out of hot water, medicated with plumbi acetas and tr. opii, and these again covered with dry ones, changing every fifteen to twenty minutes. All solid articles of food carefully avoided—beef essence, animal broths, slops, milk, etc., being the entire diet.

August 10 (second day), 7 a. m. Temperature, 101½° (in axilla); pulse, 104. Vomited about one pint of bilious or greenish matter. Passed catheter and drew only a few drops of bloody urine. 7 p. m., pulse, 108; temperature, 102°. Bloody fluid having a decidedly urinous odor passing from anus every time patient moved or turned. Inserted soft, flexible catheter, and retained it in position.

August 11 (third day), 9 a. m. Pulse 96, temperature 102⅛°. A good night's rest, took nourishment, milk, lime-water, beef tea, etc. Urine more clear, flowing from catheter, also some per rectum. Eyes jaundiced. Tongue coated with brownish fur. Bowels tympanitic and tender on pressure. Changed to dry bed, withdrew catheter, cleaned and returned it. Washed nates and genitals with carbolized water, keeping up the hot applications and opiates. 9 p. m., temperature 102¾°, pulse, 100.

August 12 (fourth day) 10 a. m. Pulse 90, temperature 100¾°. Urine more clear, and not so free from rectum. Irritation of urethra, but not so much tenderness over bowels. 8 p. m., pulse 98, temperature 102°.

August 13 (fifth day), 10 a. m. Pulse 88, temperature 99½°. Rested well, sweat, slight headache. Some desire to have bowels moved. Gave opium instead of morphia. Gas passing through catheter having a decided fæcal odor. 3. p. m., pulse 100, temperature 101¾°.

August 14 (sixth day). Flighty through night. Not so much urine passing per rectum. Catheter left out on account of urethritis. Temperature 98°, pulse 78.

August 15 (seventh day) 10 a. m. Temperature 100¼°, pulse 75.

August 16 (eighth day), 7 a. m. Temperature 98⅗°, pulse 68; 8 p. m., temperature 100⅖°, pulse 76.

This carries us over the first week with this interesting case, and to give every detail would take too much space and time; suffice it to say, on August 20 (twelfth day), on withdrawing the catheter the eyelet was filled with fæcal matter, and upon examination digitally the sutures had come away, the rent had closed so as not to admit the index finger, and feeling not unlike the os uteri.

August 21 (thirteenth day). Pulse 80, temperature 101⅖°. Bowels moved for the first time, assisted with enema and scoop, patient having a desire to strain and bear down, passing per urethra considerable fæcal matter in form of small lumps—grains of green corn—after which I washed out the bladder with tepid carbolized water by means of inserting a small pipe of a Mattson syringe into a soft catheter. Did this frequently during the entire treatment, and sometimes the water would flow back, looking like an alvine discharge. Also kept the bowels well cleansed.

August 27 (nineteenth day). Bowels moved again—the second time since injury—several large stools. Passed fæces per urethra as before. From this time on kept the bowels in a soluble condition, sustaining patient on liquid diet, and such articles as would produce as little fœcal matter as possible. At the end of nine weeks patient passed some urine per rectum, compelling him to take down his pants to urinate; but by voiding his urine several times in the twenty-four hours, keeping his bladder empty, *a perfect cure was accomplished*, the tract healing up by granulation.

Were I to treat the case again, I would do just as I did, with the exception that I would try to put in more sutures. However, we were not certain as to the extent of injury, and thought it proper to leave ample room for drainage; nor were we certain just what part, or to what extent the bladder was injured, as the patient had not voided his urine for several hours prior to the injury, and falling forward at that time, the handle may have ruptured the viscus by pressing it against the symphysis pubis, or what is more probable, it entered the bladder below the recto-vesical fold and passed out at the summit—for I do not think the bladder could have risen high enough to have permitted the impalement of the body to the depth of fifteen inches without laceration.

During the treatment of this case I was at times hopeful; again, it appeared my man could not recover; but in the language of my friend, Dr. O. H. Allis, of Philadelphia, "Do all you can

—then leave the rest with an all-wise Providence." In so doing, I felt *I had done but little* "in doing all I could," and that an all-wise One *did* do the rest.

ON THE USE OF ANÆSTHETICS IN MIDWIFERY.*

BY J. B. CORY, M. D.,
Of Denver, Colorado.

Natural labor is a physiological process. The most successful obstetricians are they who do not interfere with the natural forces, unless they are hindered or obstructed by an abnormal condition of the nervous or circulatory systems, a malposition of the fœtus, abnormal growths, or deformities.

To watch and wait, is sometimes greater evidence of skill than a brilliant operation.

"Meddlesome midwifery is bad," is a saying we have often heard, but, perhaps, have not sufficiently considered.

Frequent examinations during the first stage of labor, pulling and stretching the os uteri to hasten the dilatation, premature rupture of the membranes, the use of ergot before dilatation is fully accomplished to increase the force of the uterine contractions, frequent injection of antiseptic solutions to destroy imaginary germs, the use of the forceps to save time, and the use of anæsthetics to such an extent as to retard labor, are some of the evils of the lying-in room that we ought to guard against.

I would not be understood as detracting in the least from the important duties of the accoucheur. With just as much reason might a ship start upon a voyage without a helmsman at the wheel, as may a woman enter upon the labor of childbirth without a trained and experienced assistant. As the helmsman may set his ship upon its course and rest at ease during the calm or when the wind is favorable and constant, so may the accoucheur sit idly by as labor progresses easily and safely. But as the helmsman must be ever vigilant, with his eye upon the compass, or scanning the horizon to anticipate the coming storm, so must the accoucheur be ever watchful for the least deviation from the natural course of labor, and ready at a moment's notice to give assistance as it may be required. It is his business to "look out for breakers" that indicate approaching danger, and with skill and judgment guide the patient through the trying ordeal.

Among the various means for accomplishing this result, is the use of anæsthetics. And one of the important things for him to know, is when and how to use them. Of the anæsthetics that may be used, I give the preference to chloroform, pure and unadulterated, because it acts more rapidly, and with less excitement than the others. The only objection that can be urged against it is its want of safety. But the experience of forty years has demonstrated that when properly used in a case of labor, it is devoid of danger—for the reason that it is never necessary to produce complete unconsciousness, except in cases requiring operative procedures, and because the efforts of nature in a case of labor tend to fill and make turgid the vessels of the brain, and thus counteract the dangerous action of chloroform.

I am not an advocate of the indiscriminate use of anæsthetics in midwifery. There are many cases in which, to say the least, they are not required, and others in which their use would be detrimental.

Many women will suffer but little during the first stage of labor; will perhaps walk about and chat and laugh in the interval between the pains, and in the second stage are cheerful and hopeful in anticipation of soon holding in their arms the little stranger for which they have been so long waiting. In cases that pursue so favorable a course as this, why should we blunt the senses and obtund the intellect, and take the risk of possible accident and censure, by giving chloroform? But we sometimes, indeed quite frequently, meet with cases that are not so free from embarrassing complications. The os uteri may be rigid, and not disposed to dilate freely and easily. The constantly recurring pains, which to the patient seem to be doing no good, bring about a condition of hyperæsthesia and nervous irritability that harasses the patient beyond endurance.

In such cases the anæsthetic is invaluable, and should always be used. A few inhalations from a handkerchief upon which a few drops of chloroform have been placed acts like magic. Pain is allayed, nervousness subdued, hope restored, the rigid os relaxed, and labor progresses easily and satisfactorily.

A similar condition sometimes obtains in the second stage. Not many days ago I was called to a lady who had been in labor with her second child for eight or ten hours. The messenger requested me to take my instruments, as her first child had been delivered with forceps, and was stillborn; and from the condition she was in, he had no doubt but they would have to be used

* Read before the Denver Medical Association, February 10, 1885.

again. On my arrival, I found her very much excited, throwing herself from one side of the bed to the other, and screaming with pain. She begged me to use the instruments and relieve her immediately, or she would surely die. She was sure the child could not be born without them, and was willing and anxious to sacrifice its life to end her suffering.

On examination, which, owing to the sensitiveness of the parts, was very superficial, I found the os fully dilated, and the head beginning to press upon the perineum, the membranes intact. I ruptured the membranes, and immediately began the administration of chloroform. In a short time she became quite tranquil, and without becoming unconscious was able to endure the pain without complaint, and was soon made happy by taking in her arms the innocent cause of all her suffering.

In nearly all cases I like to give a few inhalations at the end of the second stage, as the head is pressing upon and passing the vulva, especially in primiparæ, and when the perineum is tense and resisting. I think it lessens the danger of rupture of that organ, and patients are usually very grateful for the relief it gives.

As a matter of course we should give the anæsthetic before the operation of turning, the application of the forceps, or other operation that may become necessary to complete the labor. In such cases it is best to produce full anæsthesia, and the anæsthetic should be given by a competent assistant, so that the operator may give his individual attention to the work before him. As soon as the feet are brought down, or the forceps have been applied and locked, the patient should be allowed to come partially from under its influence, so as to assist, by bearing down, in the expulsion of the child. In other cases I think it best to stop short of complete unconsciousness. My favorite method of giving it is to take a handkerchief, fold it so as to be about four inches square, spread it in the open palm and pour upon it a few drops, not more than a drachm, of chloroform, and close the hand tightly over it; then watch for a pain, or in cases of great excitement do not wait, but hold it lightly to the mouth and nostrils, opening the hand enough to liberate the vapor of the anæsthetic in such a way that it will be pretty freely mixed with the atmosphere before being inhaled. As soon as the pain is gone, or the excitement subdued, withdraw the hand and clasp the handkerchief till the approach of another. More chloroform can be added from time to time as it evaporates; but if the handkerchief is tightly grasped during the intervals, it can be kept for some time. The patient should lie on her side.

(*To be continued.*)

Hospital Reports.

A CLINICAL LECTURE.

BY WM. H. WATHEN, M. D.

(*Continued from page* 330.)

I will spend the remainder of this hour, gentlemen, in discussing sterility in a general way.

Sterility is from the Greek στερεσο—barren—implying an incapacity for conception, and has as synonyms, infecundity, barrenness, and infertility. It is mentioned in the earliest medical literature, and biblical writers often refer to it as a reproach to woman. Since married life is seldom happy without children, frequently causing the husband or wife to become nervous, fretful, and morose, it is the duty of every physician to study this subject thoroughly. Married women who remain sterile will not believe they are perfectly formed. Not only does the happiness of married life depend upon having children, but also the perpetuation of names and families, the descent of property, and the permanence of dynasties and governments. You will probably be surprised to know that in Great Britain alone there are 500,000 married women sterile. This condition may be absolute or relative, congenital or acquired. In absolute sterility there is no impregnation of the ovule; or if the ovule be impregnated, fixation to the uterine mucous membrane is prevented, and there is no conception, the ovule being destroyed in the tubes or the uterus. In a form of sterility called "sterility not absolute," conception occurs, but abortion follows before the child is viable. In relative or acquired sterility, the woman has had one or more living children, but in number not according to the duration of married life. One child sterility exists in one out of thirteen fertile marriages. There is a high degree of both absolute and relative sterility in heiresses. In the British peerage there is one sterile woman in six and a half marriages, while there is but one sterile woman in ten in the agricultural and seafaring people. In 100 marriages in the British peerage 414 children were born, while in 100 marriages not heiresses there were born 624 children.

The average time from marriage to the birth of the first child is 17 months, and the average time between the birth of children 19 months, and women upon an average bear children from 25 to 38 years of age—less than 15 years.

As one in 13 fertile women bear their first child after having been married 3 years, no woman should be presumed to be sterile until the fourth year of married life.

In order to thoroughly grasp the subject of sterility, it is necessary to keep constantly before the mind a clear idea of the physiology of conception. Several factors are concerned in the process of conception, and these should operate in harmony. The woman must produce healthy

ovules, and the man must secrete healthy spermatozoa. In each there must exist no conditions that destroy the vitality of the ovules or the spermatozoa before they come in contact, and this contact must take place under the proper conditions to produce impregnation. Then there must be no condition which prevents the fastening of the impregnated ovule within the uterus. Thus, you see, conception depends upon the combined forces or matter of two individuals, male and female.

The popular, as well as a large share of professional opinion, that sterility is nearly always due to some defect in the woman, is by no means correct.

Gross's statistics show that sterility is found in man on an average of one case in six. Statistics show that in 83 cases of bilateral epididymitis, only 8 afterward had healthy spermatozoa in the semen, due probably to obstruction of the vasa deferentia. They also show that 90 per cent. of sterile women are married to men who have had gonorrhœa before or since marriage. Spermatozoa may be secreted, yet in copulation not ejaculated on account of some congenital or acquired defect, or their vitality may be destroyed by the secretions of latent gonorrhœa. When secreted and evacuated, they may be prevented from entering the uterus by any congenital or acquired defect that interferes with sexual connection, such as imperforate hymen, atresia vaginæ, etc., or from contraction of the external or internal os, flexions, or conoid cervix. Or their vitality may be destroyed by secretions from unhealthy conditions of the mucous membrane lining the uterus, cervical canal, or vagina. These secretions may take place from glandular cervical endometritis, from areolar hyperplasia, or from latent gonorrhœa. Tumors connected with the uterus, or within the parenchyma of the uterus, or any disease of the mucous membrane or walls of the uterus, may not only prevent the entrance of semen into the womb, but also prevent fixation or conception of the impregnated ovula. Healthy ovules may not be produced on account of enfeebled health, from sudden profound shock to the nervous system, causing ovarian incapacity, or from any disease in or about the ovaries, such as chronic ovaritis, cystic, sarcomatous, cancerous, or inflammatory degeneration, or from peritonitis and cellulitis. Of course there are no ovules in the absence of the ovaries. When they are secreted in a healthy condition, their entrance into the uterus may be prevented by displacements, detachments, or absence of the fallopian tubes, or by any condition that abstructs, contracts, or obliterates their cavity.

The theory of mechanical obstruction has been almost universally taught in this country and in many parts of Europe: but recently the theory that sterility is due to local uterine disease has obtained a strong foothold in some parts of Germany, and especially in and about St. Petersburg. You may infer from my remarks that I am not wedded to any one theory of sterility, but believe that it may result from mechanical obstruction, from local uterine disease of the female generative organs, or from constitutional diseases, or finally, that it is often dependent upon some abnormal condition in the husband. Some women, while potentially fertile, are actually sterile, or may have relative sterility. This is seen in women who marry successively two or more men and have children by only one of them, or where a man marries two or more childless widows and has children by each of them. This may be styled sterility from incompatibility. Sedentary habits, confinement, changes in climate, obesity, and inter breeding, are causes of absolute and relative sterility. That spasmodic dysmenorrhœa is a cause of sterility is shown by the fact that in 332 women absolutely sterile, 159 suffered from this trouble. Most fertile women have pleasure in sexual connection, and may also have desire; but women may conceive who have neither desire nor pleasure, while others who have desire and intense pleasure remain sterile. In the absence of some positive condition in the woman that will prevent conception, we should not determine that she is sterile until we examine the semen of the husband to see if it contains living and healthy spermatozoa. While a woman with syphilis may have absolute sterility, sterility not absolute, or relative sterility, we also know that sterility not absolute and relative sterility are often the result of syphilis in the husband where the wife is not infected.

In the treatment of sterility, first try to find the cause, and then to remove it. Unfortunately, we see many cases that we cannot benefit; but others can be cured. Correct abnormal constitutional conditions, and attend especially to the secretions and the excretions. If the woman is anæmic, or her general health degraded, give nourishing and easily digested diet, tonics, constructives, and alteratives; if she has syphilis, treat that; if she suffers from obesity, reduce her flesh; if she is constipated and has indigestion, give her a gentle laxative containing podophyllin to stimulate the portal circulation, belladonna to act upon the mucous membrane, nux vomica as a tonic to the intestinal muscular fibres, and aloes as a stimulant and tonic to the pelvic vessels to remove passive congestion. Cure any disease or condition that prevents complete or perfect sexual connection, and any disease that causes a secretion or discharge poisonous to the spermatozoa. If the ovules are prevented from entering into the uterus, or are not developed on account of inflammation of the ovaries or of the cellular or peritoneal tissues of the pelvis, use copious vaginal injections of hot water, and apply counter irritation by means of croton oil, cantharides, or iodine over the inguinal regions, to promote absorption of inflammatory products. But if there is contraction of any part of the cervical canal, or obstruction caused by flexure in the cervix, or an elongated conoid cervix which prevents the entrance of semen into the uterus, then I wish to enter my earnest protest against the treatment of Sims, Thomas, Emmett, and others, who advise the use of tents, bilateral incisions, splitting up a lip of the cervix, or amputation of the cervix. Such treatment seldom does good, and often results in evil. Much more scientific and successful results will follow rapid dilatation of the cervical canal to the extent of three-fourths of an inch to an inch and a quarter. Occasionally it may be necessary to make superficial quadrilateral incisions around the external os. The rapid dilata-

tion will generally remove the obstruction from stenosis or flexure, and will tend to straighten and shorten the cervix and to alter its shape.

Medical Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Friday, January 2, 1885, the President, Richard A. Cleemann, M. D., in the chair.

Double Uterus and Vagina.

Dr. Wm. Goodell described a case which had been sent to him on account of pain in the back, various nervous symptoms, and difficult coition. The vagina was double throughout its entire length. Entrance had apparently been effected indifferently on either side of the septum. The cervices were united like the barrel of a double-barreled gun. There was a slight divergence of the upper third of the fundus. The sound entered three inches into each cavity. The septum vaginæ was divided up to the cervix, and her physician reports great relief to the general symptoms.

Dr. C. McClelland described a similar case. Pregnancy had progressed to the third month when the case came under his observation. The vaginal septum was complete. The external contour of the cervix was normal, but a thin septum extending from the os to the fundus divided the cavity into two parts. The prominence of the uterus was greater on one side of the abdomen. The sound was not passed. The vaginal septum was divided shortly before labor. A living child was delivered. About the third day after delivery, a mass, apparently of decidua, was thrown off after three or four hours of labor pains. After involution was complete, sounds were introduced into the uterine cavities, and the handles diverged one and three-fourths inches. A second conception occurred afteward on the other side of the uterus.

Dr. Goodell had some years ago under his care a case which he at first diagnosticated as an extra-uterine pregnancy, as he apparently found the uterus empty, passing the sound into it while undoubted signs of pregnancy existed. The fœtal tumor was larger toward one side of the abdominal cavity, while the uterus was deflected to the other side. He saw the patient every two weeks, and made frequent careful examinations. He sent the patient to the University Hospital, and fixed a day for operation. One day while lecturing on the case, he had his hand on the abdomen of the patient, and felt a contraction and hardening under his hand. This so resembled the action of uterine tissue that he sent the patient to the Preston Retreat for observation. She was delivered spontaneously.

There was but one cervix and one os, but there was a uterine septum higher up, dividing the cavity into two parts.

Dr. Harris remarked that the observer, in these cases, is liable to be deceived, because the enlargement of the uterus causes it to rotate, the empty half of the uterus admitting the sound in the median line. The uterus, too, is generally poorly developed, as this form of uterus is probably the result of arrest of development, and its thin walls do not give to the palpating hand the normal sense of thickness and resistance.

Double Ovariotomy with Unusual Complications.

Dr. W. H. Parish reported the following case: In September, 1884, I saw in consultation with Dr. M. O'Hara a lady who had been under his treatment for a number of months. She was 52 years of age, and of exemplary habits. The menopause had been established for a number of years, and she had enjoyed good health until a few months ago. In June, 1884, she noticed for the first time that her abdomen was enlarged. In July she consulted Dr. O'Hara, narrating symptoms of indigestion. In August, the abdomen had become so enlarged as to occasion concern on the part of the patient, and she had submitted to an examination by Dr. O'Hara. About August 15, Dr. De F. Willard saw her, in consultation with Dr. O'Hara, and the diagnosis of ovarian tumor was coincided in. On September 6, I saw the patient with Dr. O'Hara, and also diagnosticated ovarian tumor. The physical signs were the usual ones characteristic of ovarian tumor. There was distinct resonance in each flank, and no indication of fluid in the peritoneal cavity. The abdominal distension had become very considerable, occasioning no little interference with respiration, and was associated with slight œdema of the lower extremities and general emaciation. Removal by operation was urged upon the patient, but was positively refused. After the lapse of ten days, I again saw her with Dr. O'Hara. The difficulty in respiration had so greatly increased as to prevent sleep except in the semi-erect position. But little nourishment had been taken and exhaustion had correspondingly increased. In the erect position the pulse was 160 per minute, in recumbency 130. The abdomen measured forty-five inches at the umbilicus. Its shape had changed since my previous visit. In the flanks there was distinct bulging, with fluctuation and percussion dullness. I diagnosticated peritoneal dropsy as a complication of the ovarian cyst. The œdema of the lower extremities had increased. The patient had requested that she be tapped, and it was with reluctance that I consented to resort to that measure. On September 14, with the assistance of Drs. O'Hara and J. B. Roberts, I attempted to diminish the size of the abdomen by tapping the cyst, using for that purpose the ordinary trocar and cannula. Only a few drops of of thick, gummy substance were obtained. The cyst contents were too thick, too jelly-like, to run through the cannula. But a single puncture was made. The patient now gave her consent to the performance of ovariotomy.

September 16. The patient has been fed and stimulated as her condition demanded or permitted. Pulse 120, respiration 40, temperature $98\frac{3}{4}^{\circ}$ Fah. As yet no apparent disturbance from the tapping.

September 17. Pain referred by the patient to the bowels; three movements, probably resulting from indigestion.

September 18. Operation performed; previous to the operation pulse 130, respiration 40, temperation 99° Fah. Tongue dry and brown. Bowels moved twice during the night. Still has pain,

supposed by the patient to be in the bowels. There were present Drs. O'Hara, A. H. Smith, J. B. Roberts, and McElroy. The patient was etherized by Dr. Roberts and the usual incision along the linea alba was made. The tumor was found to be adherent to the anterior abdominal wall. An attempt was made to break up these adhesions, but the cyst-wall was so extremely thin that the cyst was soon torn into. Its contents were too gummy to flow, and it was necessary to scoop out this substance with the hand. The contents had the consistence and appearance of calf's-foot jelly, and was adhesive like gum, sticking to the hand so that it was necessary to strip it from one hand with the other. There were numerous slight adhesions to the intestines, but as the cyst-wall was so extremely thin these adhesions were not troublesome, portions of the cyst-wall being left attached to the intestines. It was soon discovered that the cyst-wall had ruptured prior to the operation, and that every portion of the peritoneal cavity contained quantities of the colloid material and masses of dark grumous blood. The contents had doubtless escaped gradually from a rent in the upper posterior portion of the cyst several days before the tapping. It was the presence of this material in the peritoneal cavity that led me to diagnosticate the co-existence of peritoneal dropsy. There was no serum in the peritoneal cavity. Washing the peritoneal surface with water would not remove the colloid material, and it became necessary with hand and sponge to remove it from the under surface of the liver, from about the spleen and kidneys as well as from among the intestines. After emptying the large tumor, it was discovered that there was a smaller one about the size of a fœtal head, unbroken and without adhesions and partly pressed into the pelvis by the superincumbent large one. The two tumors presented the same characteristics. They had their transparent walls with numerous internal alveolæ and thin septa, with gummy colloid contents. About the base of each, but especially of the larger, there was a limited amount of solid substance. The pedicle of each was ligated and dropped into the abdomen. Each tumor evidently grew from an ovary. The general peritoneum, wherever it could be seen or felt, presented innumerable cysts with walls and contents like those of the ovarian cysts. These peritoneal cysts varied in size from that of a millet seed to that of a pea. Many of the larger ones were ruptured by the hand or sponge. These minute cysts were not arranged in clusters with stem-like attachments to the peritoneum, but were isolated, and had the appearance of blebs on the peritoneal surface. The peritoneum presented general injection of its capillaries with slight roughening of its surface, but there were no evidences of active or decided peritonitis. The hemorrhage was but trifling, and but few ligatures were applied. The abdominal incision extended about an inch above the umbilicus. A glass drainage-tube was introduced at the lower angle of the wound, and the remainder of the incision was closed with silver sutures.

At the close of the operation shock was not great; pulse 134. Morphia was given, and the patient passed a somewhat comfortable night. No vomiting.

Morning of 19th. Pulse, 138; respiration, 34; temperature. 100° F. *Evening*, pulse 140; respiration 30; temperature 102° F. Vomiting a little, and abdomen somewhat distended. Face pale and features pinched. Three ounces of pinkish serum from tube. Vomiting checked by swallows of hot water and a mixture containing creasote and sodii bicarb. Tube washed out with carbolized water.

The third night was restless, with vomiting. Next morning, pulse 150, respiration 26, temperature $101\frac{3}{4}$°; increased stimulants, and at noon pulse was 138, respiration 26, temperature $100\frac{3}{5}$°.

Fourth night. Slept some, less vomiting, she takes koumiss and retains it; *next morning*, pulse 140, respiration 20, temperature $100\frac{4}{10}$°.

Fifth night. Pulse 120, respiration 22, temperature $100\frac{4}{5}$°, stronger. Three ounces of a somewhat offensive fluid were taken from the tube; bowels were moved instantaneously.

Sixth night. She slept well, pulse, 114, respiration 23, temperature $101\frac{1}{5}$°. Sutures removed, union complete. Tube slipped out and could not be introduced again. It left a canal with healthy granulating walls.

Seventh night. Vomiting returned. She did not receive the usual amount of stimulants during the night. Exhaustion and vomiting increased, without additional rise of temperature, and patient died on the ninth day. The death was doubtless due to exhaustion. The disease of the ovaries and of the peritoneum was doubtless colloid cancer. The tumors and the material removed from the peritoneal cavity weighed fifty pounds. It seems right to conclude that had the tumors been removed in their earlier stages, the patient would have most probably recovered from the operation and have remained exempt from the disease months or years, or perhaps permanently.

Dr. Montgomery spoke of the advantages of early operation, before peritoneal involvement. He also alluded to the dangers of tapping. He gave a short history of a case of ovariotomy with colloid contents, and recovery from the operation, but followed by death six weeks later from cellulitis and ascites, the cause being unknown.

Dr. Baer related a somewhat similar case in which the patient recovered, but is now apparently dying from a recurrence of the disease in the upper part of the abdomen.

Dr. Parish in closing said that the tapping was done with reluctance, but did no harm in this case. The peritoneal complication made the case hopeless.

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PHILADELPHIA COUNTY MEDICAL SOCIETY.

Spasmodic Tabes Dorsalis.*

Dr. John M. Keating read a paper on this subject, saying an interesting article appears in the *Revue Mensuelle des Maladies de l'Enfance*, December, 1884, by Dr. d'Heilly, on "Spasmodic Tabes Dorsalis," relating three cases, from which we gather the following valuable points, by literal translation:

About 1875, Prof. Charcot separated from the group of chronic myelitis an affection described as *spasmodic* tabes dorsalis, which was about the same time written upon by Erb, under the name of spastic paralysis. It is a chronic affection, characterized by slow and gradual progression, without doubt, of spinal origin, with a paresis of the lower extremities, muscular contraction, and with spasmodic tremors, either occurring when the limbs are touched or movements attempted, or else spontaneously. There is also increased tendon reflex.

It is most frequent in adults, but Erb, Seeligmuller (*Progres Médical*, 1876), d'Espine and Picot, have recorded a number of cases in children. In these cases, motion alone is affected; sensibility remains throughout normal. The disease may begin early; at eight months in one case of the three reported, at two and one-half years in another. Ordinarily, it is first found out by the mother, who finds difficulty in flexing the knees, or in separating the legs. In well-marked cases, the legs are stiffened, as the child lies in bed, from time to time, especially the feet, which are also turned in (equino varus); there is contraction of the abductors and extensors of the thighs. At times, the rigidity becomes marked, often the knees are held in slight flexion, and it requires some force to move them. On exciting this, the limbs are thrown into a tremor, which may be limited to the feet, or may extend to the muscles of the trunk—in fact, to the whole body. If the child be placed upon its feet, by grasping it by the body or arms, the thighs, which are flexed upon the pelvis more or less, will be adducted, the knees touching, the feet will assume a position of forced extension. In attempting to walk, the feet will drag along the ground, stumble over the least obstacle, and constantly interfere with one another. None of the children reported could walk absolutely alone; one could walk a few steps, when supported by an object upon which it rested the weight of the body by the arms; the gait was shuffling. The epileptiform tremor of the muscles is at first provoked by standing, and this greatly hinders the walking. In three cases reported, the upper extremities were not involved. This is not absolutely the rule in all cases, but when the arms are involved this follows the trouble in the lower limbs, usually at long intervals. In such cases, there is a paresis of the muscles, without involuntary flexion of the fingers at first, which is intermittent in character, and then permanent. The wrist becomes rigid in extension and pronation, so, also, the elbow, and the arm is hugged to the thorax.

With rigidity comes exaggerated tendon reflex, which, according to Charcot, precedes contraction, and which persists throughout its course, and succeeds it. It is usually very marked in the knees, less so in the feet, and in children is less so than in adults. The symptoms remain confined to the motor tract throughout the disease; the usual symptoms, due to disturbance of sensation, which accompany the different forms of myelitis are absent. There is no rachialgia, no feeling of constriction, no pain; neither are there sensations of cold, nor formications, nor fugitive pains, which, if they existed, would soon be made known by children.

Cutaneous and deep sensibility are normal; there is neither hyperæsthesia nor anæsthesia. In one of the cases observed, there was some well-marked anæsthesia of the lower extremities, but the case was a doubtful one. Sometimes, according to Westphal and Berger, interstitial myelitis may extend itself, involving the posterior tract, and then the symptoms of ataxia complicate the spasmodic contraction. The functions of the sphincters are normal; there is neither retention of urine nor incontinence, which is remarkable for children with disease of the cord.

The muscles of the thigh are not atrophied, and electro-contractility is normal. In one of the cases reported, nutrition was excellent; in the other two, it was somewhat below par, but this was accounted for by the prolonged enforced rest in bed. The duration of the disease is not limited; complete cure is rare. The symptoms persist indefinitely, despite treatment, without much improvement; if they do become aggravated, the disease is even of itself directly fatal. In children, the zymotic diseases, or most frequently tubercular diseases, make a fatal termination. It is to be regarded as an infirmity rather than a disease, as it will not prevent of itself the patient reaching adult life. We have only written of the affection in its bearing upon children. In adults it is most common at the age between thirty and fifty, and slightly more frequent in males than females. The cause is unknown; possibly prolonged exposure to damp cold is the most frequent. In children, possibly blows, a fall, or exposure. There is a congenital form, which possibly results from an arrest of, or from irregular, development in the motor tract, or is traumatic from instrumental or difficult labor. Little records a case such as this, and attributes it to spinal congestion, due to asphyxia. Possibly inheritance has its influence. In the case narrated below, the other twin was born with arrested cranial development, and lived but a few moments.

The following case serves as an example:

Louis, aged 5 years, entered the hospital (Trousseau) August 30, 1883. The child is a twin, its brother survived but a few moments. The father and mother are in good health; they are not affected with syphilis nor alcoholism. The mother has never miscarried. The child has never walked alone, but since 3 years old he could stand alone with the aid of a fixed support, and could take a few steps in that way. He began to talk at the age of eighteen months. The

*I would suggest a better name in "Symptomatic spastic contracture of infancy."

disease dates from his eighth month, at which time the mother noticed that she had difficulty in separating the legs of the child; they were straightened and stiffened at times, then became relaxed, and the conditions would again recur, either spontaneously or upon the slightest contact. The arms were in every way normal. About a month after, tremor was noticed when the child was lifted by the arms and held upright on the table. In the following month the contractions increased, and if forcibly overcome would return by themselves at once. Cold douches and faradization brought about some improvement, the permanent crossing of the limbs disappeared, and the intervals existing between the spasmodic contraction of the muscles lengthened.

The condition of the patient at present is as follows: The muscles of the lower extremities are in a state of contraction, the feet extended in equino varus, and cannot be overcome without considerable force. There is no notable muscular atrophy. When the child is held upright, the contraction increases, the inferior extremities are adducted, the feet in equino varus resting in their metatarsal phalanges. The legs cross, and the foot in advance tends to place itself directly in front of the one supporting the body. The little patient can only take a few steps by supporting himself on his arms. At times the contraction subsides entirely and the limbs become flaccid, but if the limbs are touched, however lightly, or he makes the attempt at movement, the contraction returns. Patella and plantar reflexes are exaggerated. Faradic contractility is normal. When supported erect the two limbs take upon themselves epileptiform movements which can be equally well provoked by seizing roughly the foot in advance. This tremor is more pronounced in the right limb. There has been no pain either spontaneous or upon pressure. Sensation is normal. The intelligence is somewhat undeveloped. The expression is heavy. Speech normal. The cranium shows faulty development; it is not symmetrical; posteriorly it is flattened. The frontal fossæ, especially the left one, very prominent. The right occipito-parietal region comes out in bold relief, and the left is correspondingly depressed.

The following typical case, reported by Dr. C. K. Mills, in *New York Medical Record*, September 6, 1879, presented in detail the marked features of the disease, and as I now have the patient under my care and have been able to study his present condition in contrast to what it was in 1879, I can dwell more at length upon the prognosis.

B. D., æt. 4. Nothing known of the previous history. He has a fair-sized head, but it is flattened a little more than usual from the vertex forward. The fontanelles are closed, but the lines of the sutures are projecting and rough. Both pupils are dilated, and according to the nurse, they are always in that state. He has left internal strabismus. He has no facial paralysis, he can protrude the tongue without difficulty and he talks pretty well. He seems to have fair intelligence, but he cries upon the least provocation. His back seems weak and tends to project backwards as he sits in the chair. He has no spinal curvature. He has good use of his arms, but they show a tendency to flex at the elbows. They frequently get into a semi-flexed position when he is quiet, and sometimes resist extension slightly, but they are not rigid, and he can straighten them himself without special effort. He is unable to stand alone, and if attempts to force him are made, he becomes much alarmed. If not held, he falls at once to the floor. Supported by the hand or from behind, he stands in a peculiar position. The legs from the knees upward are slightly drawn together; below the knees, they are a little apart. His heels are kept slightly elevated. The thighs are bent on the pelvis at an angle of about 120°, and the legs have about the same inclination as the thighs. The feet turn slightly inward. The flexors and adductors of the thighs and the muscles of the calves feel hard, and are in a condition of tonic spasm. He walks in a curious fashion, keeping hold of the hand of the nurse. His legs remain semi flexed at the knees. He steps on the front part of his feet and toes, the heels never touching the floor. The thigh and leg muscles are fully developed, particularly the flexor group. Electro-contractility is generally well retained. Sensibility is good. The limbs are not cold nor changed in color. The joints are free from adhesions. The prepuce is not adherent, and can easily be retracted. When sitting or lying down, his legs can be straightened by the exercise of some force, but they immediately tend to return to their state of abnormal flexion and adduction. Slightly tapping each patella tendon, the corresponding foot and leg are projected quickly and somewhat forcibly forward. I can produce the same phenomenon by tapping upon the lower part of the tibia. Abruptly forcing the foot into flexion and smartly striking the tendo achillis, no tremor or oscillation is set up, but the spasm of the flexors and adductors is increased.

Dr. Mills concludes that the disease is one of the motor disorders of the cord of the lateral or antero-lateral columns, but should not be confounded with primary lateral sclerosis, also congenital.

Samuel Gee (Bilroth Hospital Reports, vol. 13, 1877,) writes of spastic paraplegia, and considers the disease as congenital or beginning in infancy. Dr. S. W. Mitchell is quoted by Dr. Mills as having spoken of cases of children with rigidity of the legs from defective cerebral development and also of cases of spasms of ihe adductors of the the thighs, in which he has had circumcision performed without benefit. Dr. Mills, in this lecture, quotes a case which he saw with Dr. Roland G. Curtin, of this city, where all the symptoms above recorded followed an attack of rheumatism complicated with endocarditis in a girl of 13. She had in addition severe pains or aching in the joints or limbs. Under nitrate of silver, she rapidly improved, and in two weeks was well.

In the continuation of his interesting article, Dr. d'Heilly (*Revue des Maladies de l'Enfance*, January 1885,) discusses the question as to the cause and seat of this interesting symptom, quoting the researches of Richter and Berger in Germany as showing its dependence in many cases upon a primary sclerosis of the lateral columns. But, again, distinct cerebral symptoms, such as convulsions in infancy, have initiated the attack, and the spastic paraplegia following, being in

such cases a secondary phenomenon—and in connection with this, quotes Ross (*Spas. Paral. of Infancy, Brain*, October, 1882,) as asserting, that although there may be a localized spinal lesion primary, the most usual condition is one of arrest of cerebral development, assocated with a bilateral hemiplegia from congenital absence of certain centres, but should this latter explanation be correct, less marked cerebral symptoms should exist, than are presented by the cases—almost all the affections of the cord resulting from pressure, or from sclerosis, present more or less certain features which show an involvement of the lateral columns, in most of them there is pain or anæsthesia, vesical paralysis or paresis, muscular atrophy or incoördinatiou of movement and the tendency of most of them is to extension.

The ataxia of Friedrich presents many symptoms in accord with this disease. Sensation is normal. The bladder is unaffected, and there is no muscular atrophy. There is muscular incoordination and gradual involvement of the arms, and finally speech is affected. Frequent errors are made in diagnosis in such cases. Even Charcot is reported by d'Heilly as recording a case of supposed spastic paralysis in which the existence of cerebro-spinal sclerosis "en plaques" was found post-mortem.

As d'Heilly distinctly emphasizes the fact that "spasmodic tabes dorsalis" never presents any cerebral symptoms, those cases which are recognized as distinctly hemiplegic in character should be eliminated (see excellent paper by Dr. Sarah J. McNutt, Archives of Pediatrics, January, 1885), and also double infantile spastic hemiplegia (same author, *Am. Jour. Med. Science*, January, 1885). In the latter affection, which more than any other may possibly be confounded with the one in question, Dr. McNutt's exceedingly valuable paper gives us as symptoms "more or less complete hemiplegic motor inability with contraction and defective development of both bones and muscles," "with or without aphasia, monosyllabic utterances, dysphagia, dyspnœa, and idiocy, the latter being especially characteristic of the double affection."

We have endeavored to epitomize this interesting communication, because we believe these cases to be overlooked in this country, or misunderstood. The diagnosis is readily made in marked cases, especially in adults; doubtless some will read this article and remember cases of their own which had puzzled them. Certainly in the cases referred to by Dr. d'Heilly, there was a lesion of a more or less persistent character, but are there not functional derangements, prototypes of the more serious disease, whether disturbances in nutrition or in circulation, which can be influenced by treatment? Can we not have one form depending upon imperfect development of cerebral centres, and another, possibly a difference in degree only, affecting in the same way those of the cord? Cases of functional paraparesis in infancy, with spasmodic adduction, are certainly noted by all who see much of children's practice, and in such cases the muscular wasting, when it does occur, is secondary, owing to want of use.* In our own experience these congenital cases seem to be due to imperfect development, as the intellect shares this condition, though to such a slight extent as only to be noticeable by comparison; the child is said to be backward.

Functional contractions are not infrequent after acute diseases in infancy. A child of my own at the age of twenty months had spasmodic closure of the fingers and great rigidity of the wrists, immediately following a mild attack of rötheln, which lasted several days (3 or 4). There was no pain apparently, and none of the other muscles were affected. When playing, she lifted her toys with the back of her wrists. Nutrition was perfect, the functions normal. In this case, relaxation would come on at times, but the slightest touch or effort on her own part would bring about violent contractions. There was relaxation during sleep. I noted this same condition following measles, in an infant, which involved the muscles of both arms and legs, the extensors of the legs and the flexors of the arms, with contraction of the toes and fingers. There was pneumonia in this case, and the temperature ran high. The little patient gradually improved; in fact in both these cases the improvement was very gradual. Large doses of bromide of potassium, hot baths, and friction, with tonics, were used in the first case, and in the latter quinine and poultices in addition. Possibly these cases may be called hysterical. The lesion is evidently an irritative one, but exactly why it should be limited to certain cord centres and be painless, is an interesting problem.

But in such cases as reported by Dr. d'Heilly, when changes have probably taken place of a definite character, and especially if they occur in children but a few months old, our only chance for treatment points to alteratives, tonics, and encouraging nutrition.

Like all other symptoms, contractions may represent in infancy and childhood, as well as in adults, simple irritation, hysterical possibly, and every grade to advanced disease. I think chorea may be classed in this category also.

As for the treatment of well-marked cases of spasmodic contraction, there seems but little hope of doing good. The disease, whatever its lesion may be, is limited—is never fatal—and after reaching a stage about as advanced as the boy B. D., quoted from Dr. Mills' report, somewhat improves. This boy can now take a few steps by himself before the muscular spasm upsets him; he is in excellent health, well nourished, muscles firm, and never complains. But in this case the lesion certainly seems to be a bilateral central one. If we were able to recognize the features of the disease of the spinal types in its incipiency, I believe much could be accomplished, and it is for this reason that I bring this matter before you this evening.

All causes of irritation should be removed. If they are males, possibly preputial adhesions are present; they should be broken up or circumcision performed. In my opinion the latter is a most important operation, not so much from the relief to the phymosis, which could be, in many cases, equally well accomplished by stretching (Willard), but owing to the direct results upon the nutrition of the spinal centres, which section

*This I believe should not be confounded with the so-called idiopathic contracture of infancy, which is the result of irritation, and is painful and acute in character.

of the peripheral terminations of the nerves in the prepuce may bring about, acting as does the actual cautery or blisters in other neuroses. In females I would give warm baths, alternating with cold sponging, especially to the spine, and full doses of bromide of potassium. In incipient cases, the bromides are of great importance, with stimulating frictions to the spine, using either mustard poultices, or liniments of oil of amber or croton oil, or possibly dry-cupping. Fresh air and proper diet are, of course, understood; in the latter, milk should always form the principal part, and eggs, also, in preference to animal broths. As regards medication, I would insist upon an emulsion of cod-liver oil, either with liq. acid. phos. comp. (Pepper), or lacto-phosphate of lime. Arsenic is certainly of great value in these cases. As to quinia and strychnia, I feel doubtful as to their use, even in very small so-called tonic doses; for although the condition is possibly an evidence of anæmia, as are chorea and some mild forms of epilepsy, I would prefer to rely on food, iron, arsenic, and fresh air.

In more pronounced cases, when we have decided evidences of "spasmodic tabes dorsalis," and treatment has been of little avail, we might use the bichloride of mercury, in small and frequent doses—$\frac{1}{150}$ of a grain, three times daily; or if we suspect sclerosis, the chloride of gold and sodium. But I think that the best results are obtained with the nitrate of silver; in it I would place most reliance. Erb is reported as having cured a case with the continued current. Charcot failed with electricity, hydropathy and cauterization.

(*To be continued.*)

Editorial Department.

Periscope.

Repeated Abortions Successfully Treated with Potassium Chlorate.

Dr. E. S. McKee thus writes in the *Cincinnati Lancet and Clinic*, February 14, 1885:

The following case has been under my care for two and a half years, and in its management, Dr. Palmer has a number of times seen the case with me:

In 1882, Mrs. C. presented herself for treatment at the dispensary of the Medical College of Ohio, with the following history: Æt. 34; American; married at fifteen; lived with her husband two years and had two miscarriages; remained a widow one year; remarried, and miscarried eight times. These ten miscarriages occurred during the fifth, sixth, seventh, and eighth months of utero-gestation, one only, the last, being later than the seventh month. Some of these occurred as frequent as two in the same twelve months. On examination, she was found pregnant. Her present husband had always enjoyed excellent health, and her first, she said, was likewise healthy. Her own health had been fair. No history of syphilis could be obtained, nor did physical examination show any evidence of this disease; no malformation of the uterus, chronic metritis, or other local diseases explaining the frequent miscarriages, were found. On further questioning, she said, to use her own language, "The doctor, who attended her about eight years ago, said the afterbirth was nothing but a chunk of fat, and took it home with him."

Presuming the cause of the trouble to be fatty degeneration of the placenta, she was put on chlorate of potassium, fifteen grains three times a day. This remedy was continued with but few intermissions and an occasional laxative pill to keep the bowels open, until gestation was completed. A healthy boy was born. He promised to do well, but succumbed on the ninth day to an overdose of an opiate.

July 10, 1884, she appeared again, about three months pregnant. On the advice of Dr. Palmer, she was, for the second time, placed upon the chlorate of potassium. She took the remedy in fifteen-grain doses three times a day, and, for a time took as high as thirty grains, morning, noon, and night.

August 18, the fœtal heart was plainly heard. The chlorate of potash was given constantly with tinct. ferri chloridi, except when such remedies as tinct. nux vomica or bismuth were demanded on account of stomach disturbances incident upon the pregnancy. At various intervals the fœtal heart was noted to be beating nicely, and on November 25 a healthy boy was born at term, who still lives.

In the last delivery, which was late at night, the messenger failed to get me, and returned to find the baby born. Before my arrival the placenta had been made way with. But for that unfortunate incident, the placenta would have been carefully examined.

It is not my purpose to enter into the broad field of abortion in its medical, moral, and legal senses, but as far as can be only where it is connected with this case.

As to the terms abortion, miscarriage, and premature labor, there is much conflict of authority. Some say it is abortion before viability, and premature labor after that date; others, abortion when occurring during the first three months, miscarriage during the fourth, fifth, sixth, and seventh months, and then premature labor; still another speaks of abortion prior to the twentieth day as ovular, fœtal from this date to the sixth month. The ancients called early abortion effluxio. These are needless and confusing divisions, and lead to no practical result. It is best to speak of abortion prior to viability, then premature labor. Miscarriage is a term that will

cover all, is less ambiguous, and by the laity very much better understood.

Ninety per cent. of child-bearing women abort once or oftener, and about one pregnancy in seven terminates abortively.

The etiology is an interesting field, and one capable of much greater cultivation. As a guide to prophylaxis, a clear knowledge of the causes is very necessary. Important as is this subject, it would be beyond the scope of this paper to enter fully into the the etiology. There may be maternal, fœtal, or possibly paternal.

Habitual miscarriage is a term severely criticised by some authors, yet there seems to be ground for the belief of the habit being present in some women. Edis (*Brit. Med. Jour.*, 1875, ii. 65,) calls it "an assertion of ignorance. We might as well say she aborts because she aborts." This, and the statement that a woman is laboring under an abortive diathesis, he says, are "ignorant dogmas, and it is useless to sit down disarmed and passive under their protection." It has nevertheless been the experience of every one largely engaged in obstetric practice, that some women are unable to carry their offspring to full time. They again and again bring forth stillborn children. One abortion paves the way for another. Repeated abortion, it is said, weakens the uterus.

Burns mentions Schulzius as reporting a case where a woman aborted twenty-three times at the third month.

Dr. Young, of Edinburgh, reports thirteen abortions, the fourteenth going to term.

Tyler Smith* reports six successive abortions with albuminuria.

Protheroe Smith reports a woman who, in thirteen years of married life, had six abortions and three children at term.

Leishmann says there are rare instances where we can only account for the repeated abortion by supposing that the uterus has contracted an inveterate habit. A woman who has aborted is much more liable to a repetition than a woman who has never aborted. There is certainly here evidence pointing toward the existence of a habit, though it is possible that this may be explained away by the presence, in each case, of some cause undiscovered.

Sir James Simpson first used and recommended chlorate of potash in cases where repeated miscarriages had taken place from fatty degeneration of the placenta. He used it on the theory that an abundance of oxygen was supplied to the fœtus through the placental tufts. In a discussion before the Edinburgh Medical Society in 1869, in which Sir Janes Simpson, Dr. Cuthbert, and others, took part, he said he gave it on account of disease of the placenta, but he believed also that it was a means of arterializing the blood. He was led to the use of the chlorate in such cases by the experiments of Davy and Stephens, who pointed out that an alkaline salt when brought into contact with the blood gave it an arterial appearance.

Dr. O'Shaughnessy† and others have found by experiment that it gives a bright scarlet color to the venous blood and passes undecomposed into the urine. This he found by injecting the remedy into the veins of animals.

Dr. Isambert,* however, denies the statements of O'Shaughnessy. He says the chlorate does not part with its oxygen at the temperature of the body, and, as it is eliminated from the kidneys unchanged, he says it has not the specific action claimed for it. Granted that the observations were correct, they in nowise warrant the deduction, since partial mechanical asphyxia will produce the same result, as will also other alkaline carbonates. As to the real action of chlorate of potash in the system, we have no very detailed knowledge, but the salt is about equal to the nitrate of the same base. It certainly increases at times the flow of the urine, and is eliminated very largely from the kidneys. Viewed from a chemical standpoint, it is improbable that the salt parts from any great per cent. of its oxygen at the normal body heat. It is not only found present in the urine, but also in the bile, saliva, milk, tears, perspiration, and nasal mucous membrane.

Isambert† used it on himself for several days in increasing doses of from eight to twenty grammes. He noticed a greenish color of the stools and an increased flow of the urine, with a feeling of oppression and pain over the kidneys. Ten days after it was taken, he could find it in the urine. The elimination continued twenty-four or forty-eight hours.

It should never be triturated with sulphur, sugar, tannin, or other readily-oxidizable substances, except in the presence of water. Disregarding this precaution has caused many serious explosions. It is easily seen how a distinctly alkaline fluid, as the blood, having loosely combined alkali present, would lead to the gradual oxidization of the organic constituents of that fluid.

The oxygenation of the blood produced by chlorate of potassium was very ingeniously applied by Dr. Fountain.‡ He employed it quite successfully in cyanosis from heart and lung troubles. This investigator died from taking an ounce at a dose, experimentally.

Bruce‖ used chlorate of potassium in six cases where repeated abortion had occurred. In all but one of these the children came to term. In this one he brought the child to the eighth month, instead of the fifth, the usual time at which the abortions occurred. The child's abdomen was found much enlarged from ascites, and it probably would not have lived anyhow. He gave the remedy to the amount of ℥j. daily. In one case he increased it to ℥ij. daily on account of weakening of the fœtal heart.

Dr. Inglis§ said he never seen potassium chlorate fail. In one case, after sixteen still born children, the seventeenth was born alive under this remedy.

Dr. Cairn§ reported a case of a woman who had

*Trans. London Obstetrical Society, 1, 1859, 108.

†U. S. Dispensatory, "Chlorate Potash."

* *Loc cit.*

†Etudes cliniques, physiol. et cliniques sur l'emploi therap. de chlor. de potasse. Paris, 1856.

‡New York Journal of Medicine, 1859, p. 1.

‖Trans. Obstetrical Society of Edinburgh, Nov. 15, 1865, p. 670.

§Loc. cit.

aborted five times. Potassium chlorate carried the sixth child to the sixth month.

Dr. Keiller* thought it a matter of difficulty to prove that the mother's blood was really oxidized by the chlorate of potassium to the extent of acting on the placental structures or their fluids. He thought the result might come from the tonic power of the salt or the wonderfully tonic power of hope against the depressing influence of dread. He had given it to one woman who had lost seven children; she was now in the eighth month and doing well. Had given the chlorate of potassium to the extent of several drachms per day, largely diluted. The patient used it as a common drink.

Dr. Balfour* said chlorate of potassium does not act as usually supposed, by parting with its oxygen, for it was eliminated unchanged. He thought it altered the constituents of the blood so as to enable it to take up more oxygen, as sea water suspends more oxygen than common water.

Dr. John W. Tradi, of Sedalia, Mo., reports a case of "Threatened Abortion Successfully Treated by Chlorate of Potash." † His patient had been married six or eight years and miscarried each year about the sixth month. He gave 2½ grains every three hours. The patient was in the worst possible condition, and was obliged to remain in bed the whole period of utero-gestation.

No less an authority than Karl Braun, in his recent works, speaks favorably of the use of potassium chlorate in miscarriage.

Tuberculosis of Testicle in an Infant.

Drs. Monks and Wigan thus write in the *Brit. Med. Jour.*, December 27, 1884:

R. A. C., a child aged five months, came under my care on January 1, this year, suffering from an enlargement of the right testicle, which had been noticed by the parents for some days previously to my seeing it. On examining, I found the testicle enlarged, painful, and hard; there was also thickening of the spermatic cord, which latter contained some hard nodules. On examining further, I discovered in the left ischio-rectal fossa a distinct fullness, as though an abscess were forming. There was no evidence of fluctuation in this part, and pressure seemed to cause pain. I came to the conclusion that injury must have been the cause of these two swellings in the first instance, yet the parents were unable to give any history of injury. I prescribed linseed poultices and hot fomentations to the swelling in the ischio-rectal fossa, and lead and opium lotion to the enlarged testicle, and an anodyne mixture internally.

In a few days, the swelling in the left ischio rectal fossa softened, and I detected fluctuation. I made an incision into the part, and removed about two drachms of pus.

The enlarged testicle did not change much, but if anything, seemed to become larger; I left off the application of the lotion, and applied strapping. Under this treatment, I thought there was some diminution in its size; but I must have been deceived. I then tried the application of iodine, and gave iodide of potassium internally, having now come to the conclusion that it was either specific (although I had no history) or malignant. Yet a malignant tumor of the testicle in such a young child must be rare. The child became weaker. I noticed a few enlarged glands in the inguinal region. The small opening in the ischio-rectal fossa was still discharging. The back part of the testicle became reddened and soft, as though the skin were about to give way. I proposed to the parents removal of the enlarged testicle, as the only remedy to give the child a chance of living. To this they objected. The child gradually sank, and died on March 7, from asthenia.

I could not get permission to make a complete post-mortem examination, but was allowed to examine the testicle. On making an incision into the scrotum, and coming down on the testicle, I found the anterior surface hard, as during life, and the posterior part soft and breaking down, and containing a little pus. On making a longitudinal section of the tumor, I found the testicle proper, surrounded by a large amount of dense and firm tissue; the nodules also were hardened in the cord. I forwarded the specimen to Dr. Dreschfeld, of Manchester, who very kindly examined it. The naked-eye appearances were exactly like those of a scrofulous testicle; and, microscopically, it showed embryonic tissue, giant-cells, and detritus where the mass is broken down; also, in the scrapings, several tubercle-bacilli were found. Dr. Dreschfeld also added, that "it is very likely the scrofulous testicle was the primary focus, and set up afterwards general tuberculosis. Had the parents allowed you to remove the testicle during life, probably the child might have been saved. Scrofulous testicle at such an early period is rare." I may mention, in conclusion, that the parents have no trace of tuberculosis in the family, and their other children are healthy.

Intestinal Strangulation.

Dr. E. P. Easley reports the following interesting case in the *Louisville Medical News*, February 28, 1885:

On the 15th of January last, Mrs. S., aged forty-three, while attempting to drive a nail in the top casing of a window, felt something give way in the abdomen. Soon afterward she had a copious diarrhœa lasting several hours, with vomiting and severe abdominal pain. Her bowels at once became inactive, and failed to respond to large doses of castor oil, Crab Orchard salts, and salt water injections into the rectum. Pain and vomiting were persistent, though not violent nor very distressing. On the 24th she vomited a large quantity of stercoraceous matter, revealing what had not been suspected, a constriction of the intestine. Patient's condition at this time was fairly good; pulse 96, temperature normal; slight tympanitis; much borborygmus.

Up to this time she had taken opium by the mouth and hypodermically, in medium doses. She was now given a half grain of morphine by the hypodermic syringe, and the dose was repeated next morning. This was continued night and morning (with an additional dose of a quarter of a grain by the mouth at intervals through the night) until recovery.

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* Loc. cit.

† Boston Med. and Surg. Journal, 1869, vol. 81, p 287.

On the 25th her condition was much the same, except an increased frequency of the pulse; she still vomited feculent material.

Gastrostomy was now talked of, and Dr. Sloan was called in consultation; but as the seat of the constriction could not be located, and the symptoms were not very alarming, he advised against it at present.

On the 30th the patient (in the meantime vomiting fecal matter daily) had a small, liquid stool, and on the 31st several of like character. Since then she has had a normal evacuation daily. At no time did death seem imminent, the pulse never going above 120 per minute. Prostration was greater after the evacuation of bowels than before; strength and appetite returned slowly.

The seat and nature of the obstruction can only be surmised. Her age and the symptoms render intusssuception improbable. The introduction of a long rubber tube showed no stricture of the rectum nor twisting of the descending colon, nor was anything observed in the case that would lead to the conclusion that the constriction was spasmodic (ileus). The theory of fecal obstruction (ileus paralyticus) is untenable, because the history of such occlusions is wanting in this case. Neither is it likely that diverticula were the cause of the strangulation. The woman had pelvic cellulitis after her last confinement, seven years ago, and this fact points to false ligaments in the pelvis as the most probable cause of the incarceration.

The most acceptable theory of cure seems to be this: Peristaltic action was completely arrested and held in abeyance by opiates, inflammatory reaction being thereby prevented; the early diarrhœa and rectal injections evacuated the bowel below the constriction, the vomiting emptied it above, and thus allowed the intestine to free itself either by its own resiliency or by change of position.

Some excuse, perhaps, is necessary for the delayed diagnosis. When I saw her first, on the 17th, I was informed that she was suffering from suppressed menstruation, something not unusual with her. I failed to get the early history of the case, and I saw her but once after that until the 24th, when the vomited matter at once revealed the nature of the case.

Oil of Wintergreen in Acute Rheumatism.

We have already noted the use of this drug in the above disease, and now we reproduce from the *Med. Age*, February 25, 1885, the following remarks by Dr. J. A. Wessinger:

During the past week two cases of acute articular rheumatism came under my observation, in which the local application of the oil of gaultheria was accompanied with very gratifying results.

On January 31, I was called to see Mr. J——, who had always enjoyed good health, and had never been addicted to the use of alcoholic stimulants. I found the patient suffering from acute articular rheumatism at the right ankle-joint, and also in the great toe of the same foot. Pulse 85, temperature 100°. I immediately ordered local applications of the oil of gaultheria to the painful joints every hour, and the limb wrapped in woolen cloth. At noon, or four hours from the time I first saw the patient, the pain had not abated in the least; other symptoms about the same. I then ordered the ankle and toe to be saturated with the oil every half hour. • At night I again saw the patient, at which time the rheumatic pain had very materially abated, and the swelling quite perceptibly reduced. I ordered the treatment continued the same as before. On the morning following, the patient was able to walk with very little discomfort, and was otherwise feeling quite well. At this visit I discontinued the case.

Case 2. P. E——, æt. 8, has always been quite healthy until the morning of February 3, when he was taken with severe pain and swelling in the knee and ankle-joints of both limbs. I saw the patient on the afternoon of the same day, and, from the condition as presented, my diagnosis was acute articular rheumatism. Temperature 102°, pulse 90. I immediately ordered local applications of the oil of gaultheria every half hour, and the limbs wrapped in woolen cloth. I also ordered grain-doses of sodium salicylate in solution, as an antipyretic. On the morning following, patient thought the pain less intense than on the day previous. Temperature 101½, pulse 90. Treatment continued the same as before.

February 5. Patient is able to walk and feels much relieved; pain almost entirely gone; swelling reduced; temperature 101°. I ordered local applications of the oil continued, and increased the dose of sodium salicylate to two grains every hour, under which treatment the temperature came down to normal during the succeeding twenty-four hours. From this date the patient made a rapid recovery. Should other cases of this difficulty present themselves in the future, I shall administer the oil of gaultheria, both locally and internally. I certainly see no reason why much good cannot be done in these cases by the internal administration of this remedy.

Oil of wintergreen, although only recently introduced in the treatment of this malady, promises to be a very valuable addition to the therapeutics of acute articular rheumatism. Its action in this condition is, no doubt, owing to the salicylic acid which it contains, since we learn in chemistry that one of the most interesting compounds derived from wood-spirit is the salicylate of methyl, or oil of wintergreen, which is extracted from the flowers of the *gaultheria procumbens*, and was one of the first vegetable products to be prepared artificially by the chemist. It is obtained by distilling wood-spirit with sulphuric acid and salicylic acid, the latter acid being formed by the action of fused hydrate of potash upon salicin extracted from willow bark.

Observations on the Action of Cocaine.

Dr. George F. Goode thus writes in the *St. Louis Courier of Medicine*, February, 1885:

For the past few months medical journals have published in almost every issue observations on the action of the muriate of cocaine. The testimonials of most observers coincide in regard to many of its actions, which are looked upon as established. But still the work of observation goes on, and those who are employing this valuable

agent in surgery, in many cases in which it is used under varying circumstances, will note points to which attention has not before been called. Indeed, so varied have the experiences of the numerous operators been with this anæsthetic, that it has been a cause of considerable discussion in regard to the existence of certain conditions reported. Although this subject may seem a little trite, I will give a short résumé of observations made in the practice of Dr. Robert Sattler, of Cincinnati.

1. Its anæsthetic effect has been noted in every case, and so great is its value as such that the removal of a foreign body from the cornea is no longer attempted without it.

2. Dilatation of the pupil has been observed in most cases; but in quite a number of cases with dark irides the pupil remained normal or was but slightly dilated.

3. The sclerotic in the majority of instances has become almost blanched. In but a few cases has it caused any congestion. In regard to this last point, the question might be asked: Does the cocaine, if such is a result, have any deleterious influence in operations performed under such circumstances? I will state that in two cataract cases operated upon, in which subconjunctival congestion occurred, very violent reaction followed. In one case, kerato-iritis occurred, and in the other capsulitis ensued. Whether the reactions in these cases were simple coincidences is a very important question; for upon its establishment rest the safety of many operations and the future of many patients.

4. The accommodation, which has been said by some to be affected in the majority of cases, was altered in but a few cases. Two or three points which have not heretofore been published may be added, viz: a fixed condition of the eyes during the operation; a creaky sensation of the cornea on section; a clonic, rigid condition of the iris. These points were especially marked in two cases of cataract extraction. In both of these cases more than the usual number of instillations of a four per cent. solution were made, orders having been given to make instillations, commencing at a certain time, at intervals of ten minutes until the operator arrived. Had he arrived at the time appointed, but three instillations would have been made, whereas arriving about twenty minutes late, they numbered five. In both of these cases so fixed were the eyes that it might have been possible to make the operations without fixation. The cornea also seemed dry and caused a creaking sensation. The patient in one case stated that he felt no pain, "only a rubbing or drawing sensation." So marked was the rigid condition of the iris that it offered a perceptible resistance to the grasp of the forceps.

Monsel's Iron in Diarrhœa.

Dr. Edward T. Williams says in the *Boston Med. and Surg. Jour.*, February 5, 1885:

"Ever since I began practice in 1868 I have been looking for a really satisfactory astringent in chronic catarrh of the bowels. There is, as every one knows, a class of cases where the ordinary vegetable astringents fail to act, or at least act too feebly to do real good. The intestinal lining is in an ulcerous, or quasi-ulcerous, condition, and requires the potent action of a mineral astringent to treat it, as in cases of external ulcer. The acetate of lead is one of the best remedies in these cases, but cannot be safely given for any great length of time. Oxide of zinc in pill form is safe and efficient, but with children, who must take it in powder, often vomits and gripes. Sulphate of copper and nitrate of silver are still harsher, and for children quite out of the question. Subnitrate of bismuth is worse.

"I began trying, in 1876, at the Seashore Home, iron alum (the officinal sulphate of iron and ammonia). I found it better than anything I had previously tried, and have used it freely ever since. It is not quite so well borne by the stomach as lead and bismuth, but far better than zinc or copper. The dose for a child is from one to three grains; for adults, from three to ten. At the Seashore Home we make powders containing one grain of the salt to a twelfth of a grain of opium, giving one or more for a dose according to the age of the child. For adults the pill form is of course preferable. I have had the best results from its use.

"Last summer I began using Monsel's salt in its place, both in public and private practice. This I did from my experience of its great efficiency as a styptic, and a presumption that it might do equally well in diarrhœa, and have found it even better than iron alum. I have tried it only in the dry form, manufactured by Squibb under the name of pulvis ferri subsulphatis. In this State it is not officinal, though it is precisely the same as the officinal liquid ferri subsulphatis evaporated to dryness. It may be given in the same doses and in the same way as iron alum."

Rupture of Heart.

Dr. Cameron reports the following case in the *Canadian Practitioner*, February, 1885:

J. L., aged 36, an habitual drunkard from early life, was admitted to the hospital on November the 26th, suffering from an acute attack of alcoholism. He was extremely shaky and cyanotic, but not constantly delirious. His pulse was small, frequent, and irregular, and my clinical clerk, Mr. Logan, reported a systolic apical murmur, assigned to mitral regurgitation. He was confined to bed, placed on a milk diet, and given tr. ferri. mur. et tinc. capsici, in moderate doses, at frequent intervals, together with bromide of potash in half-drachm dose, at bedtime. He went on fairly well for a couple of days, but on the third day, during the absence of the nurse from the ward, he got out of bed to pass his urine, and while in the act of micturition he fell upon the floor. He was immediately lifted upon the bed, but in the course of a couple of minutes expired. The consent of the friends to an autopsy could not be obtained, and so the heart was hastily surreptitiously removed. The pericardium was found filled with blood, and on removal the heart presented the rupture of the right ventricle seen in the specimen. On testing the valves, it was found that the pulmonary and aortic valves were thoroughly competent. Owing to the position of the rupture, it was difficult to be certain

about the tricuspid, but the outer segment of the mitral valve was very considerably contracted and crippled in its action. The other organs could not be examined.

It was said by some one that the patient had stated, after admission to the hospital, that a doctor had told him fourteen years ago that his heart was affected.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——An investigation of equal interest to botanists and pharmacists is that recently conducted by Miss Helen C. De S. Abbott, of Philadelphia, with reference to the chemical products of the bark of *Fouquieria Splendens*. This is the Mexican *ocotilla*. It yields a vegetable wax, possessing peculiar properties, which are studied in this paper (Reprint from Trans. Am. Philo. Soc.).

——Dr. J. V. Shoemaker, of this city, has reprinted in pamphlet form his paper before the International Medical Congress, "On Treatment of Diseases of the Skin by Novel Means and Methods." It is an excellent review of the subject.

BOOK NOTICES.

Controlling Sex in Generation. The Physical Law Influencing Sex in the Embryo of Man and Brute, and Its Direction to Produce Male and Female Offspring at Will. By Samuel Hough Terry. 12mo., cloth, $1.00. New York, Fowler & Wells Co., publishers, 753 Broadway.

Here is one of those books which pretends to tell a great deal, and tells, in fact, very little. We will give at once the asserted "physical law." It is this: At the generation of male offspring the mother must be in a higher degree of sexual excitement than the father, and *vice versa*. There is a good deal said about the father being "positive," the mother "negative," the male developing "vitreous," the female "resinous" electricity, which sounds as if the author had studied his physics about forty years ago.

There is no satisfactory evidence offered of any such "law;" scarcely of a well-founded surmise to that effect. The author has been hasty in advancing it, and we are a long way off from the solution of the question.

The Year-book of Treatment for 1884. Philadelphia, Lea Bros. & Co., 1885. 12mo., pp. 316. Almost every year an annual review of therapeutic progress has appeared from one or another publishing house, but none of them have survived their third winter. It would appear that there is not the desire among American practitioners for mental pabulum of this kind. Perhaps it comes to them too slowly. Certain it is that a wide-awake journal contains during the year all and more on the therapeutics of the day than can be put in a yearly volume of moderate size.

The present year-book is the combined work of a number of contributors, each of whom has taken care of a special branch. It is an English composition, and has the objection that it scarcely gives a fair show to American workers. The text is a series of brief summaries of articles in various journals. They are carefully made, but not more so than those found in the quarterly epitomes.

The London Medical Student, and Other Comicalities. Selected and compiled by Hugo Erichsen, M. D. Pp. 316. Published by Dr. H. Erichsen, 11 Farmer street, Detroit, Mich. Price $2.

From a variety of sources, principally the London *Punch* and the leading English and American medical journals, Dr. Erichsen has compiled a volume of racy anecdotes and amusing narratives of a medical character. They will serve admirably as an antidote to the gloom that is liable to hang over the long hours of waiting to the young or unoccupied physician. The longest narrative is a series of sketches supposed to be taken from the life of a London medical student. It is more amusing than true to life, at least to life in the present day. Since that time the medical student must have materially changed, if it was then a veracious portrait. Many of the shorter comicalities are very good indeed.

Human Osteology, Comprising a Description of the Bones. By Luther Holden, assisted by James Shuter, F. R. C. S., with numerous illustrations. Sixth edition.

A Hand-Book of Physiology. By W. M. Baker, F. R. C. S., and V. D. Harris, M. D. Eleventh edition. Illustrated. Vol. I. William Wood & Co., New York.

These two volumes are issues of Wood's "Standard Medical Library," for 1885. Both of them are treatises long and favorably known to the profession, and with the careful revision and constant editorial care they receive as each edition is prepared for the press, it is likely that they will long continue to be selected as text-books.

In the present issue, both of them are illustrated and brought down to the present position of science, so that they have the merit of new books.

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THE DUTIES OF CITIES IN THE FACE OF EPIDEMICS.

The approach of warm weather begins to stimulate our citizens to take measures to protect the city against the inroad of Asiatic cholera which is feared for the coming summer.

The County Medical Society has organized, through its Committee on Hygiene, a series of public lectures on sanitation; the Society for Organizing Charity has addressed an earnest appeal to Select and Common Councils; and in connection with the Wagner Free Institute of Science, a Sanitary Protection League has been created, whose object is to advance the health of the city, and to ward off epidemics.

These various undertakings are all timely and appropriate; and representations of the danger of dirty streets, neglected privies, injudicious diet, adulterated milk, decaying vegetables, and the like sources of ill health cannot be too strongly urged on civic authorities. The history of past epidemics is conclusive to the effect that united and intelligent effort on the part of the people, the magistracy, and the physicians, can prevent the development of epidemic cholera. If it gains a destructive foothold in any American city, it will be through the culpable neglect of the citizens.

With the present rapidity of travel, and the great increase in the number of travelers, the old forms of quarantine are no longer possible, and it is doubtful if they ever had much utility. Yet it is absurd to add that non-communication is no bar to the extension of cholera. Many striking examples to the contrary might be quoted. The difficulty has been in preventing communication, and this difficulty yearly increases.

While the vast majority avoid a centre of pestilence, there are always reckless or confident persons ready to enter it; and the anxiety of those in such a locality to seek escape from it will certainly foil the most vigilant sanitary cordon.

The result is that practically preventive measures are the only safe ones on which to rely. They are also the cheapest, even though they

may be very costly. Any parsimony in expenditures to bring a city into the highest sanitary condition is grossly out of place. Every dollar saved here will be ten lost in the future. The tremendous depreciation of values of all kinds in a city scourged by pestilence has been recently illustrated at Toulon, Marseilles, and Naples. Business came almost to a standstill; the failures were almost as numerous as the firms; and empty stores and houses left real estate owners without an income.

Let there be no hesitation, therefore, in all our cities, about appropriating money liberally to the cleansing and purifying of their purlieus.

PERSONAL MEDICAL JOURNALISM.

There is a sort of medical information which we look upon with no great favor, and which we take no pains to disseminate: it is that personal medical gossip which has its only attraction to readers because it refers to some person of note. In English journals this is constantly seen with reference to members of the royal family, and each journal plumes itself particularly on being the first to report that the Prince of Wales woke up with a headache after his last night's jollification, or that the Queen was again suffering from rheumatism in the toe.

This personal journalism has lately been disgustingly displayed with reference to the case of General Grant. Bulletins appear in certain weekly medical journals, full of minute details, generally wrong, and never instructive to the scientific mind.

The *Medical Record* lately sent out to a large number of secular papers a slip in advance of its regular issue, stating that private, personal revelations of the general's attending physicians had pronounced his case one of simple ulceration, and therefore soon to recover.

The next week the *Medical News* countered this with another batch of confidential communications from the general's physicians, exactly the contrary in tenor, and conveying the most unfavorable prognosis. This also was sent on slips to the secular papers.

Such action appears to us discreditable to the journals named, and to the physicians in attendance on the case. Medical readers gain nothing by such bulletins, and the public are cultivated in the morbid craving for pathological details. The real object of both journals was not any beneficent one, but only to gain notoriety with the general public, to secure which there was no hesitation in sacrificing the confidences of professional brethren, or in pandering to corrupt public taste. If this is journalistic energy, it is singularly misdirected and blameworthy.

PERINEOPLASTIC OPERATIONS.

The radical operation so often performed in cases of laceration of the perineum is by no means always attended with success. At times, the operation has to be done over and over again, and yet the final result is not all that is desired. Dr. Schmidtmann, who of late has four times operated for lacerated perineum, and each time with perfect success, has published his experience in the *Archiv. für Gyn.*, xxiii., page 396. He believes that the unsatisfactory results are mostly to be ascribed to one of two reasons, or to both, viz.: First, to the intestinal gases, and second, to the want of complete adaptation of the wound margins at the sides, this want being caused mainly by the imperfect sutures. S. tried to remedy these defects as follows:

To carry the intestinal gases out of the way he introduces a gum drainage, the gutta-percha tube of which must lie upwards about one and a half inches higher than the highest intestinal wire-suture, and which should be provided outside of the anus with lateral openings. This tube is held in place by the last intestinal suture, which is laid around the drain and tied underneath it.

To remedy the second evil, which, in S.'s opinion, is caused by the strong dilating action of the transversus perinei, due to the laceration of the constrictor cunni and of the sphincter ani externus, S. applies one or two deep and penetrating sutures from the lowest part of rectum to the vagina, passing through nearly all the tissues forming the wall of the latter. These sutures are

tightened at both ends, and ought to grasp as much tissue as possible. This is done for the purpose of diminishing the tension, which otherwise would necessarily decrease the value of the more superficial stitches, which after all alone can lead to a healing by first intention. As the dilating influence of the transversus is always exerted in these cases, the superficial stitches must invariably yield, if the precaution mentioned be not observed.

POLITICS IN MEDICINE.

Civil service reform, which both political parties seem to approve of, good everywhere, is especially applicable to medical positions. There are many such under the government, and we hope that no effort will be countenanced to make changes on account of the political views of aspirants or incumbents.

We have heard some talk of an effort to supplant the Supervising Surgeon-General of the Marine Hospital Service. No good reason has been offered, but the underlying motive seems to be that the duties some years ago assigned to the National Board of Health have been latterly transferred to the Marine Hospital Service.

Of course, such a change stirred up a certain amount of bad blood. Some ambitions were defeated, and there was a stop put to some altogether excellent series of investigations and reports.

The nation lost by its parsimony and shortsightedness; but the Marine Hospital Service, or its senior officer, was not to blame, and the act should not be visited on him.

If medical societies and leading medical men will urge the true facts of the case, a change will not be made for this cause: and it should not be.

NOTES AND COMMENTS.

Treatment of Tenesmus.

There are two symptoms which, though occasionally accompanying grave diseases, are often met with in mild affections, but exceedingly annoying to patients. These symptoms are tenesmus of the rectum and tenesmus of the bladder (recti et vesicæ). In many cases of diarrhœa, especially during the warmer season of the year, the symptom, of which the patient really complains, is the frequent desire to evacuate the bowels, accompanied by a peculiar spasmodic condition of the sphincter ani. Again, in catarrhal conditions of the bladder, also mostly prevalent during the summer, when the main symptoms are a frequent desire to micturate and a painful smarting sensation during the act, a very similar tenesmus seizes the neck of the bladder, and often is almost unbearable to the patient. Happily these symptoms—the tenesmus in both cases—are not apt to endure long, but as long as they do last they are a torment to the individual suffering from them.

Heretofore we had to be satisfied either with the causal treatment of the underlying disease—the diarrhœa or dysentery in the one, the catarrhal inflammation or the specific urethritis in the other case—or with the local application of heat or of anodynes, the latter in the form of suppositories if the bowels were the seat of the lesion, or in that of injections if the bladder was the organ affected.

Recently Dr. J. Bettelheim (*Wiener Med. Presse*, 1884, 45,) has tried the new local anæthetic, muriate of cocaine, in a severe case of tenesmus of both rectum and bladder, and the result was very favorable and prompt, though not of more than a few hours' duration. Still, in the milder cases mentioned, where the tenesmus forms *the* symptom for which the patient consults the physician, a transient action would be all that is necessary to insure success; and if the action of the cocaine in such cases can always be relied upon, on that one account alone the addition of the drug to our pharmacopœia would be a boon to many a sufferer. The solution employed in B.'s case was the usual 2 per cent. one.

Supposed Poisoning by Colchicin.

The Paris correspondent of the *Lancet* (January 24, 1885,) writes to that journal as follows:

Colchicin, the active principle of the seeds of colchicum, recently discovered, is a most powerful poison, and has not till now, I believe, been adopted for criminal purposes, although the other preparations of the plant, when given in moderate doses, possess known therapeutic properties of great value. The extreme toxic nature of colchicin has been taken advantage of by a manufacturer of artificial flowers in Paris, who obtained the drug by surreptitious means under the pretence of requiring it for the purposes of his

trade, ostensibly for dyeing flowers of a violet hue; but it is supposed that in reality it was for a criminal purpose, as circumstances have occurred which lead to the suspicion that he used it to poison his first wife, who died a short time ago, and who had been buried only a few weeks when he married his present wife, a girl of eighteen. From the smattering of chemistry that the florist had, he hit upon colchicin as being the most convenient for his purpose, as no trace of the presence of the alkaloid was found in the body after death. This circumstance, coupled with the symptoms with which his wife died, excited some suspicion at the time, which has been increased by the fact that the man had, shortly before her death, made two unsuccessful attempts to obtain the alkaloid at chemists' shops; and as the cause of death by the administration of this drug is as yet only an assumption, the body of the supposed victim is to be exhumed and submitted to an examination. I may here note that a chemist, writing on this subject, describes colchicin as a salt crystallized in the form of fine needles, without odor but of a bitter taste. It dissolves in water and in alcohol. One centigramme in solution killed a cat in a few hours. At the autopsies of the animals so treated, the stomach and the digestive tube were always found to be excessively inflamed, just as if the parts were burnt. Meanwhile the accused man is under arrest, and the case is being thoroughly investigated.

Chorea.

Dr. O. Sturges has treated 219 cases of chorea, and in about twenty per cent. a rheumatic diathesis could be established, while fifteen per cent. more had suffered at some time or other from rheumatic symptoms.

Dr. Hadden has recently observed three cases of chorea, in which the faculty of speech had been lost.

Prof. Engel, of the Medico-Chirurgical College of this city, introduced to the students during one of his clinics in February an interesting case of chorea in a girl eleven years old. Last winter she had an attack of acute articular rheumatism, and two months later chorea developed itself. The St. Vitus' dance disappeared after about six weeks. This winter she again suffered from rheumatism, and again, two months later, the first symptoms of chorea showed themselves. The disease was double-sided, but the right side was far more affected than the left. It was a typical case, and the irregular movements almost incessant. After the chorea the second time had lasted about five weeks, the faculty of speech was lost. There was not sufficient disturbance in the muscles of the face or in the tongue to ascribe the loss to impaired articulation; neither was aphonia present; it was a plain case of complete aphasia. On the right side, tests proved the existence of anæsthesia.

In most cases of this nature there is a rheumatic history, and whenever aphasia is a prominent symptom the chorea attacks either the right side alone, or if both sides, mainly the right; and anæsthesia is apt to occur on the side mostly suffering, as was noticed in the case of the girl mentioned. The prognosis of these cases in general is very favorable; though the choreic movements are usually severe, a complete recovery is the rule. During sleep no abnormal muscular action is observed, which fact forms a main point in the differential diagnosis between chorea as a disease *per se*, and choreic symptoms as accompanying an organic cerebral lesion. The only internal remedy that may shorten the disease is arsenious acid, but the dose must be gradually increased and the remedy be pushed to the limits of physiological poisoning, which can easily be determined by the œdema of the eyelids, or the conjunctival inflammation, or the severe epigastric pains. In a child 8 years old two drops of Fowler's solution ought to be the dose to start with, and every second or third day one drop more be given. But rest, regular gymnastic, but mild exercise, the avoidance of all excitement, and the drawing away of the attention of the child from its disease, are of far more importance in the treatment of chorea than internal medication.

Arsenical Paralysis.

In Russia, arsenic can easily be procured by anybody who wishes it for the destruction of rats and mice. Then there are many itinerant quacks that administer arsenic for every possible disease. These may be two of the reasons why poisoning by this drug is so frequent an occurrence in Russia. Dr. Scolozonhoff, who had a rare opportunity to observe cases of this kind, has published the results of his investigations in the *Arch. de Physiol.*, 1884, No. 7, p. 323.

It is generally believed that most arsenic is deposited in the liver; but many post-mortem examinations, as well as experiments on animals, have convinced S. that the arsenic is present in the central nervous system in thirty-six times larger quantity than, for instance, in the muscular tis-

sue, and that brain and spinal cord contain four times more than the liver. Myelitis is a very frequent symptom of chronic arsenical poisoning, and according to S., it is due to a disseminated myelitis caused by the drug—the same spinal lesion that Westphal noticed in some cases of variola.

Electro-muscular contractility generally diminishes with the duration of the disease; especially in the atrophied muscles it becomes finally lost. There is, therefore, nothing characteristic about the electrical reaction, as the same holds good for all spinal affections of organic nature. Only one point may aid in the diagnosis—the reaction to the galvanic current reappears sooner than that to the faradic.

Bichloride of Mercury in Diphtheria.

This drug has been already so highly recommended that it is important for us to collect all the available evidence on the subject. Dr. W. H. Tate says, in the *Peoria Med. Mo.*, January, 1885, that he has had occasion to treat quite a number of cases of *typical* diphtheria lately, and the basis of his treatment was the *bichloride of mercury*, together with the tinct. ferri and pot. chloras.

Several of the cases were malignant in form, all of which yielded admirably to the treatment.

While he does not wish to convey the idea that this remedy is a specific in the above-mentioned disease, yet he does think it is potent as a remedy, and if properly administered cannot be gainsaid.

He prescribed the following:

℞. Hydr. bichlor., 1 grain.
Aqua destillat., 4 ounces. Dissolve.

Sig.—One teaspoonful in a little sweetened water every four hours (or oftener if required).

In addition to above he gave

℞. Chlor. hydrate, 1 drachm.
Tinct. ferri, 40 drops.
Pot. chloras, 2 drachms.
Tinct. digitalis, 2 drachms.
Aquæ, 4 ounces.

Sig.—Teaspoonful every two hours.

Quinia was given in tonic doses three times a day, and the bowels regulated as required.

The above prescription was given to about twenty-five patients, whose ages ranged from five to fifteen years, producing good results; only one of the number died, death occurring from collapse after convalescence.

Masked Malaria.

The fact that medicine is a very inexact science, that diagnosis is very far from perfection, and that the physician must have some undefined and indefinable term with which to satisfy his patients when he is too much puzzled to be able to satisfy himself, was never better illustrated than in the following annotation which the *Med. News*, January 10, 1885, makes from the *Gaz. Med. di Torino:*

"In an interesting paper with the above title, Dr. F. Simon, in the *Rivista Clinica de Bologna*, shows the necessity, especially in children, in obscnre and serious cases, of holding in mind the possibility of such conditions, and insists upon the efficacy of sulphate of quinine in their treatment after all other remedies have failed. He cites three cases in which the symptoms noticeable were, in one, suffocation, followed by persistent dyspnœa; in another, an intermittent fever and torticollis, manifested twice daily and at regular intervals; in a third, a simple intestinal catarrh, followed by a very profuse, mucosanguinolent diarrhœa. In every case the administration of quinine was followed by permanent improvement."

Of course, the improvement under the use of quinine, plainly demonstrated that quinine was indicated and desired by the system; but is it not about time that we try to attach some *rational meaning* to the word *malaria?*

Salvia Officinalis in Catarrhal Rhinitis.

Dr. D. Hayes Agnew thus writes in the *Therapeutic Gazette*, Jan'y 15, 1885: In a case of chronic catarrhal rhinitis, accompanied by profuse purulent discharges mingled with dark scales, and in which the integument covering the nose and the adjoining sides of the face were red and swollen, after exhausting in vain every known remedy, the disease yielded to douches of sage tea. The patient, who was a married lady, had suffered from the disease for over four months. In cases of ordinary nasal catarrh, an affection at present exceedingly common in the northern portions of the country, when uncomplicated by the usual post-nasal hypertrophy of tissue, infusions of Salvia prove very comforting washes.

Glycerinum Aluminis.

In the *Brit. Med. Jour.*, January 24, 1885, Dr. Robert William Parker suggests a new preparation of alum, which he strongly recommends after a prolonged trial. It is made by dissolving one ounce of alum in five ounces of glycerine, by means of a gentle heat. This is about four times as strong as a saturated watery solution. It is indicated in all cases where a powerful local

astringent is required; and has the advantage over tannin of being far less disagreeable, equally astringent, and quite compatible with an administration of iron. In cases of chronic pharyngitis —so common in children—it is very efficacious; diluted with water, it forms a useful gargle, injection, or lotion.

Chloral Hydrate for Chordee.

In the *Med. Age*, February 25, 1885, Dr. Morris C. L. Kitchen says that for two years he has been using chloral hydrate, gr. x., potas. bromid., gr. v–x to aq. dest. ℥j as an injection for chordee, and has *never* known it to fail of affording perfect relief. He usually adds morph. sulph., gr. ij to the ℥j.

He does not think from his observation that chloral hydrate, or this mixture, is indicated in all stages of the disease; but when chordee comes on, he can confidently recommend the use of it, and usually no other injection is needed afterwards.

CORRESPONDENCE.

Iron as a Medicine.

EDS. MED. AND SURG. REPORTER:—

The intention is not to speak of the therapeutic importance of iron in this short article, for this is presumed to be familiar to every practitioner; but we will endeavor to show by chemical and therapeutical comparisons the advantages possessed by one form of iron over another, of the most common preparations in use.

Long before medicine was entitled to rank as a science, iron in some form was given to cure the sick; and from then up to the present time its utility as such has never been questioned by the profession at large, but the subject of its most appropriate form, to derive its full worth without being accompanied or followed by objections equal to or outweighing its virtues, has constantly been agitated.

Some physicians have continued to give, while others have returned to giving simply metallic iron (*Ferrum*) in a state of minute division as being preferable to any of its preparations; but these are very few in point of numbers, for they soon reach the conclusion that iron plays but little or no part in the healing art, and it is discarded entirely from their lists.

The least, and, perhaps, the most, that can be said of iron in an uncombined state is, that while it possesses but few objections, it has less virtues. Many of our most valuable medicinal agents, both mineral and vegetable, seem to depend upon their union with other agents to develop their full therapeutic strength, and this is not more true of any of our medicines than it is of iron.

Acids possess the property of developing the full medicinal force of iron better than any known agents, and to so great an extent is this recognized that it is safe to say nine-tenths of all the iron prescribed is in the acidulous form. Acids, however, differ widely in their chemical construction, in their astringency and assimilability, and hence in their usefulness as therapeutic agents, either when given alone or in combinations. Not to go minutely into the chemistry and therapeutics of acids, it is sufficient for our present purpose to know that the organic acids are not irritating, less astringent, more easy of assimilation, and equally as efficacious in combining with iron, giving them a decided preference over the inorganic acid preparations. The inorganic or mineral acids are all more or less caustic and astringent, and when in combination with iron are not only often injurious to organic structures, such as the teeth and mucous membranes, but are also appropriated with difficulty on account of their astringency.

Some authors claim that the mineral acid preparations of iron act in no other capacity than that of astringents. While this is true in the main, it is not literally so. Every physician can call to mind cases where prompt and beneficial results followed the use of the *sulphate*, *carbonate*, *muriate*, and other inorganic acid preparations of iron, where their astringent properties were not called for; but he can at the same time refer to innumerably more, where no results or injurious results followed their administration. It would seem that the few instances in which the caustic and astringent properties of the mineral acid preparations of iron do not equal or outweigh their good effects are so few, indeed, that they serve only as the exceptions to the rule; and particularly is this the case among that thin, anæmic, chlorotic class of patients who stand most in need of iron. The organic acids, however, are entirely destitute of irritating properties and very slightly astringent, which eminently fit them, so to speak, to draw out the full medicinal strength of iron without the accompanying objections to the inorganic acid preparations. The *acetate*, *citrate*, *malate*, and other organic acid preparations of iron, have proven themselves mild, efficient, and in every way preferable to the stronger acid preparations, unless the sole object be that of a caustic or an astringent. The *malate*, in the form of solution ferrous malate, we will endeavor to show further along as having advantages over all other forms of iron.

The objections to the strong mineral acid salts of iron have been the means of bringing out a number of non-acid preparations, such as reduced iron (iron by hydrogen), dialyzed iron, etc.; but we will venture to say that clinical experience has proven them to be about as worthless as they are harmless. Reduced iron, of course, is simply metallic iron in a minute state of division, while the very mode of preparing dialyzed iron, its non diffusibility, seems to us a positve guarantee against its ever passing out of the intestinal canal, and therefore never reaching the blood.

The foregoing seems to warrant the following suggestion. To derive the full therapeutic importance of iron it would seem that it must be in combination with an acid; and to be void of caustic and astringent properties, it must be of the organic instead of the inorganic acidulous form.

There are, however, other considerations of equal importance. As is well known, iron combines with other elements and radicals in two proportions, and those *oxides*, *chlorides*, *acetates*, *malates*, and other salts, in which the atom of iron appears to possess inferior affinities, are termed *ferrous*, the higher being *ferric salts;* but the higher the *oxide*, *iodide*, *citrate*, *carbonate*, etc., the more difficult of assimilation becomes the preparation. To so great an extent is this being recognized, both by physicians and chemists, that the former are ceasing to prescribe preparations of the *ferric* if similar ones of the *ferrous salt* are obtainable, while the latter are laboring to make stable preparations containing the *ferrous salt* only. The difficulty is not so much in being able to make preparations containing the *ferrous salt* as it is in retaining them as such, so great is the affinity between the elements that the *ferrous* is soon converted to the higher salt of iron. The saccharated carbonate of iron and solution ferrous malate are the only two stable preparations of the *ferrous salt* largely in use, which in point of assimilability gives them advantages over all other preparations of iron. The former of these two preparations is prevented from further oxidation by the addition of sugar to the freshly made *ferrous carbonate* before being exposed to the air. If, however, it is not properly protected, a portion of the *ferrous* will afterwards be converted to the *ferric salt*, and the assimilability of the preparation thereby lessened. The saccharated carbonate of iron has been in use quite awhile, is widely known, and laid down in chemistry and therapeutics as being the most assimilable form of iron that we have. The latter preparation, solution ferrous malate, is of a more recent origin, and though extensively prescribed wherever known, it has not yet met with that recognition due it, and which it is destined eventually to receive. We have in this preparation the *ferrous salt*, pure and simple, and permanently retained as such by an alcoholic syrup solution being made of the newly prepared *ferrous malate*. It has a great advantage over the saccharated carbonate of iron in being of the organic instead of the inorganic acid form.

Chemical knowledge and therapeutical experience prompts a slight amendment to our former suggestion, which we feel should give to it almost or quite the distinction of a rule: *To derive the full medicinal strength of iron it must be in combination with an acid, but to be void of all objectionable features it must be of the ferrous organic instead of the ferric inorganic acidulous form.*

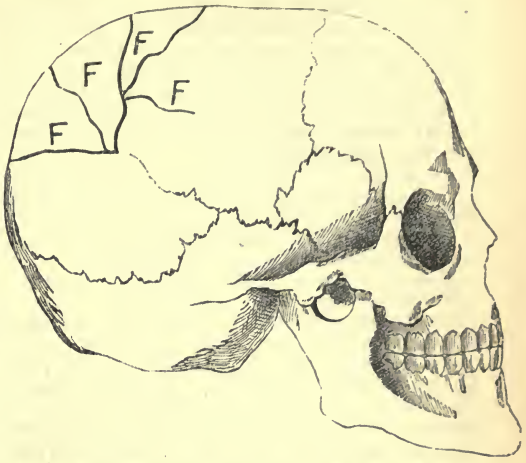
Solution ferrous malate meets these requirements. We have in this preparation the ferrous salt in combination with a fruit acid.

J. Clark Slay, M. D.
101 *West 28th street, N. Y. City.*

Traumatic Aphasia.

Eds. Med. and Surg. Reporter:

In the Reporter of February 21, is noted a case of traumatic aphasia. I will here relate a case that was under my observation until cured. The patient, a soldier, aged 23 years, healthy, received his injury by a railroad accident, being thrown by an engine from the track. His



skull was fractured upon the left side, at the junction of the frontal and parietal sutures, as per diagram in Reporter, as well as I here show on paper. He lost about two to four ounces of brain matter. The fractured bones weighed three ounces, while the hole left in the skull measured $3\frac{1}{4}$ inches long by $2\frac{1}{2}$ inches in width. After the accident, the fragments of bone and brain matter being removed, and the wound dressed, he was unconscious, and did not come to himself for ten days; being fed by rectum and mouth as occasion would permit. Four weeks after the injury he began to walk about himself, but could say or speak not one word; only by motion of hands and signs could he make his wants known—the faculty of speech was lost. This lasted about eight weeks, and the first words he used were "*Give me a little,*" and here it ended. By this time he was up and about as well as he ever was, wound well, no function but what was going on as in a healthy person, except speech. After ten weeks he began to pick up one word after another, and he used to come to my quarters, I being then at Dennison U. S. General Hospital, in May, 1865 (here is where the accident occurred on the railroad). He told me after he could again talk that he always, that is after he came to himself, knew what he wanted to say but could not say it; as he himself put it, he could have fought for a word. He could talk very well when I last saw him, the hole in his head was covered by the scalp and depressed about three inches below the bones of the skull, as all of three or four ounces of brain were lost. In fact, as he said, he was like a child, and had to again learn one word after another.

C. H. Schmidt, M. D.
Kenton, O., February 24, 1885.

News and Miscellany.

Woman's Medical College.

The thirty-third annual commencement of the Woman's Medical College of Pennsylvania drew a a large and fashionable audience to the Academy of Music, March 11, 1885. The corporators, faculty, and students of the College sat on the

stage, which was bright with flowers and plants. The programme comprised music by the Germania Orchestra, under the direction of Mr. Charles M. Schmitz; prayer, by Rev. George Dana Boardman; conferring the degrees upon the graduates, by T. Morris Perot, President of the Corporators of the College, and an address to the graduates by W. W. Keen, M. D., Professor of the Practice and Principles of Surgery.

The graduates were as follows:

Connecticut—Lucy M. Creemer, Elizabeth M. Peck.

District of Columbia—Ida J. Heiberger.

Massachusetts—Mary V. O'Callaghan.

Missouri—Frances Coleman Smith.

Nebraska—Saleni Armstrong.

New York—Juliet E. Hanchett, Mary Edith Hennessy, Jenny G. Wagner.

Pennsylvania—Ellen G. Brensinger, Mary H. Cheyney, Harriet A. Kane, Galista V. Luther, Kate McDowell, Anna M. Reynolds, Clara C. Shetler, Ida M. Shimer, Elizabeth Snyder, Ella Prentiss Upham, Ella S. Webb, Emma H. Williams.

Rhode Island—Sarah M. Wilbur.

PROF. KEEN'S ADDRESS ON VIVISECTION.

In his address to the graduates, Prof. Keen devoted considerable time to the discussion of vivisection and its practical benefits, saying:

"To stand still we must accept our present knowledge as a finality, complacently pursuing the well-worn paths, neither hoping nor trying for anything better—happily, again, an impossibility. To grow better, we must try new methods, give new drugs, do new operations, or do old ones in new ways—that is to say, we must try new experiments. To these experiments there must be a beginning; they must be tried first on some living body, for it is often forgotten that the dead body can only teach manual dexterity. They must thus be tried—if not upon an animal—upon you. Which shall it be? In many cases, of course, which involve little or no risk to life or health, it is perfectly legitimate to test supposed experiments on man first, although one of the gravest and most frequent charges made against us doctors is that we are experimenting upon our patients. But in many cases they involve great risk to life or health. Hence, they cannot—nay, they must not—be tested first upon man.

"Must we then absolutely forego them, no matter how much of promise for life and health and happiness they possess? The only alternative we have is to try them upon the lower animals, and we would be most unwise, nay, more, we would be cruel—both to man and animal—if we refused to pain or even slay a few animals that thousands of both men and animals might live. Who would think it just to put a few drops of hydrochlorate of cocaine (a year ago an unknown drug) into the eye of a man, not knowing what frightful inflammation or even loss of sight might follow? Had he dared to do it, and had the result been disastrous, would not the law hold him guilty and punish him severely, and all of us say, Amen? But so did Christison with his Calabar bean, and well-nigh lost his life; so did Toynbee with prussic acid on himself, and was found dead in his laboratory."

Further discussing the question, Dr. Keen said: "In passing, I may say that the assertion that America has contributed but little, so far from being an argument for the restriction of vivisection, is a strong argument for its further cultivation, in order that greater good may result from remarkable discoveries here, equal to those that have been made in Europe."

The speaker then related some of the many advantages vivisection has gained during the past thirty years. These were extremely interesting. Referring to this country, he said: "Before Dr. H. C. Wood's accurate experiments on the effect of heat on animals, the nature and effects of sunstroke were almost matters of mere conjecture. Every one had his own theory, and the treatment was equally varied. Even the heat effects of fever itself—the commonest of all symptoms of disease—were ill-understood. Wood exposed animals to temperatures of from 120° to 130°, and studied the effects. These experiments have often been alluded to as 'baking animals alive.' You will observe that the heat is not greater than that to which our laborers are exposed sometimes in our hot summer days. His experiments showed that the effect of sunstroke—or, as he happily termed it, thermic or heat fever, a scientific name now widely adopted—was solely due to the heat, death following from coagulation of the muscular structure of the heart or by its effects on the brain. They explained many phenomena of ordinary fever as the result of heat alone."

Further he said: "In India alone 20,000 human beings die annually of snake-bite, and as yet no antidote has been discovered. How can we search intelligently for an antidote until we know accurately the effects of the poison? This cannot be studied on man. We must resort to animals, or else let the holocaust go on. Accordingly, Dr. P. Lauder Brunton began such a series of experiments in London, but was stopped by the stringent anti-vivisection laws there in force. But Drs. S. Weir Mitchell and Reichert, in this city, have recently undertaken experiments on cobra and rattlesnake venom, the cobra poison being furnished, be it observed, by the British Government, whose own laws prevented investigation for the benefit of its own subjects. The results are as yet only partly made known, but they have been brilliantly successful in showing that there are two poisons in such venom, which have been separated and each studied as to its effects. The first step has thus been taken. The poison is known. Who will raise a finger against the next step—the antidote?"

In speaking of the remedies suggested for other diseases by experiments upon the lower animals, Dr. Keen made mention of cholera. "At present," he said, "our strenuous efforts are all in one direction, viz.: to study the cholera microbes by the microscope, by chemical observation, and by experiments on animals, in order to find out their original causes, growth, and effects, and to discover by what means their deadly results may be avoided, or by what remedies, without harm to the patient, they may themselves be destroyed. Evidently, these studies cannot be tried on man; they must either be tried on animals or be abandoned."

In conclusion, he said: "I have given you

only ascertained facts for your future use in the communities in which you may settle. They may assist you in forming public sentiment on a basis of fact, of reason, and of common sense. The sentiments of our profession, so constantly and so conspicuously humane, are always against giving pain, but if in yielding to sentiment we actually increase disease and pain and death, both among animals and men, our aversion to prevent pain is both unwise and actually cruel."

Marriage and Cholera.

The following interesting communication from the famous scientist, Richard A. Proctor, published in the *Philadelphia Press*, March 15, 1885, is worthy of reproduction:

"There are few methods of research more apt to lead men astray than those depending on statistics, yet there are few on which men place more unquestioning reliance. They often justify Disraeli's scarcely grammatical saying, that 'Few things are more deceptive than facts, unless it be figures.' In an anonymous essay which appeared in the London *Daily News* in 1869, and was quoted from soon after with approval by Darwin, in his 'Descent of Man,' I pointed to the error into which those statisticians have fallen who reason that because the death-rate for the married is lower than the death-rate of bachelors and spinsters, therefore marriage is prophylactic. Mr. Herbert Spencer has insisted strongly on the same objections which I then urged. Dr. Hark, and since his time Dr. Drysdale, M. Bertholet and others, have with great care examined death-rates for the married and the unmarried. They have carefully considered how the statistics vary for different periods of life, and for the two sexes. And they have proved satisfactorily that the death-rate among the married is decidedly lower than among the unmarried. Drysdale and Bertholet have gone farther, proving by statistics that consumption, lunacy, idiocy, dishonesty, drunkenness, and other evils, or evil qualities, are less common among the married than among the unmarried. Because they have proved this, they imagine that they have proved marriage to be a preventitive, if not a cure, for many fell diseases, as well as for madness and for crime. And now comes the latest piece of evidence in favor of the hymeneal cure for disease. It appears that cholera affects the married less than the unmarried. Between the ages of 25 and 30 the mortality of married men from cholera during the recent epidemic in France was 10 per 100,000, while the mortality of unmarried men from the same disease was 51 per 100,000. Between the ages of 30 and 35, the numbers were respectively 21 and 70. The discrepancy was found to increase with the age, and between the ages of 50 and 55, while the number of deaths per 100,000 was only twice as great as between 25 and 30, for the unmarried the number for the married was more than three times as great, the actual membership being respectively 37 and 167.

WHAT THEY SAY IN EFFECT.

It seems to many as though such facts as these were of themselves demonstrative of the preservative influence of marriage. As a matter of fact the theory is not demonstrated, scarcely even supported, by the evidence adduced. Stark, Drysdale, and the rest, say to all men and women, in fact: "If you are of a delicate constitution, so that your hold on life is weak, marry, that your chance of long life may be increased; if your sons and daughters are weakly, let them marry early; if you recognize in your nature evil tendencies, marry; if your children are of evil nature, urge them to marry; if there is a strain of madness in your blood, marry; if your offspring manifest mental defects—melancholy, weakness of mind, incipient traces of unsound mind, see to it that they marry as early as possible." Now, grant that the end desired may be secured in this way, and let us see what must come of it. The weakly are saved, let us suppose, for a span of time beyond the age which, if unmarried, they would have reached; those of weak or unsound mind are saved from such marked manifestations of their mental defects as otherwise they would have displayed; those of evil tendencies display their evil nature less publicly than they would have done if unmarried. So much is gained. But who for a moment can set this trifling gain against the evil probably wrought in every case, and certainly wrought in most cases? For tens of weakly, weak-minded, and evil-natured beings partially saved, scores of such beings are brought into existence; nay, in many cases, the offspring of the marriages suggested by the selfish theory we are considering must be inferior even to their parents, because, in many cases, inferior types of men would be mated to inferior types of women, were the advice so earnestly given by Drs. Stark and Drysdale systematically followed. If, then, it shall appear that the theory on which this advice is based is altogether unsound, there are more reasons than one for dwelling on its defects. As an unsound theory it should be rejected; as a dangerous doctrine it should be denounced.

"Now, what are the observed facts? Among the married fewer die young, fewer offend against the criminal laws, fewer become insane or idiotic or intemperate, fewer commit suicide, fewer succumb to consumption, cholera, and other diseases, than among the unmarried. What can be clearer? say Stark and his followers.

"What would be thought of an agriculturist who, being anxious to compare the value of two methods of planting potatoes by testing results, should take for one method all the potatoes stored in some ill protected cellar, where they were exposed to many chances of being ruined, and for the other only potatoes kept carefully according to the best methods known for storing such roots? He would probably find the latter method giving much better results than the former; but he would be none the wiser, for the superiority of the results might be wholly due, and would certainly be partially due, to his selection of the best preserved roots for that method and of ill-preserved roots for the other.

"Now, to any one who considers superficially the marriages taking place all the time, it may seem as though there were no special selection of the stronger lives, the wiser minds, the better morals. We see weakly folk finding mates; male and female cranks marry; and folks of evil disposition have no difficulty in joining the ranks of

the wedded. But in reality, such persons may be said to marry in spite of their defects, physical, moral or mental; and immense numbers of those afflicted by such defects fortunately fail to marry, or wisely avoid marriage.

"THE LOGICAL CONCLUSION.

"A man of sense who is of feeble constitution, knows that he should not marry, because, in the first place, he is ill-fitted for the more earnest struggle which, on the average, the married have to make to maintain their position, and, in the second place, his children would probably inherit his defects. A man who inherits, or knows that he may inherit, cerebral defects, need not necessarily be so wanting in moral sense as to be willing to risk entailing like defects on his children and grandchildren, perhaps to untold generations. Men of evil nature may not, perhaps, be deterred from marriage by thought for others. But such men, and those of poor physical nature, and those of defective mental powers, are all, fortunately for themselves and for the world, pretty heavily handicapped in the matrimonial race by their various defects. The same is true of women. In some cases, which must appreciably affect the average, parents interfere where the young folks unwisely overlook defects which cannot but impair the happiness of the wedded state, and must inevitably lead to much inherited misery. For these, and many other reasons which might be cited, marriage may be regarded as a selective process, by which (on the whole) the weaker and worse in body, mind and morals remain in one class—that of the unmarried—while the stronger and better enter the ranks of the married.

"There is not much fear, perhaps, that because the married have been found to succumb less readily to cholera than the unmarried, all the weaklings will rush into the bonds of matrimony when an epidemic of cholera is threatened or in progress. But it is well to insist, in season and out of season, on the folly of the idea that men and women can guard themselves by marriage against disease and death, and on the wickedness of adopting that resource could it be proved to be a sure one. Natural selection is the means by which nature leads to the development and improvement of races. In fine, the more thoroughly the thought of marriage is separated from all selfish ideas, whether relating to bodily, to mental, or to moral health, the better will it be alike for human happiness and the progress of the human race."

Provisions for our Insane.

There was a large attendance at the conference held by the Prison Committee of Councils, Committee on Lunacy of the State Board of Charities, and the Consulting Staff of the Blockley Insane Asylum, on March 10.

Drs. S. Weir Mitchell, H. C. Wood, and C. K. Mills, the consulting staff of Blockley Insane Hospital, submitted an answer to the letter addressed them by the Councils sub-committee. The opinion was expressed that the insane should not be permanently provided for on the almshouse grounds, and that provision should be made for them in close proximity to the city, and in such position that at least 200 acres of ground can be secured. On the important question of cost the committee suggests that Councils and the Board of Guardians petition the legislature to erect a State hospital *for the insane of the city of Philadelphia.*

"We recommend very earnestly," the doctors said further, "that measures should be immediately taken for the vacation of the attics of the almshouse and for the destruction of the pavilions. We believe that every one acquainted with the subject thinks these changes imperative, and that they should take place before the possible visitation of cholera. The tearing down of the burned buildings would open the quadrangle to the south, so that the prevailing winds would be freely admitted in summer, while the clearing out of the low central buildings, now used for almshouse purposes, would afford opportunity for exercise grounds, sheltered from the cold north and west winds of winter and spring. At a comparatively small expense the present buildings could be made extremely serviceable for hospitals, and the city at last have an institution worthy of its good name. There is one alteration which has been commenced in the present out-wards and should be completed immediately. This is the tearing-out of the so-called 'cubby-holes,' atrocious, airless, dark, noisome, life-destroying, germ-harboring cells, the very conception of which was monstrous. To complete their destruction would cost a mere trifle. We earnestly advise that no other changes should be made in the buildings until a well-digested plan is prepared; otherwise, there will probably be a great waste of money by alternate tearing down and building up, with patchwork result in the end. A wise economy requires that a few hundred dollars be spent in obtaining an opinion from the best expert to be found as to the proper plan of altering these buildings into a modern hospital. We would venture to suggest Dr. J. S. Billings, of Washington, as above all others fitted to give advice on this subject. He is certainly the highest authority upon hospital construction in the United States, if not in the world."

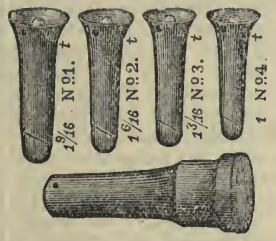
Cooper Hospital (Camden, N. J.).

The Managers of the Cooper Hospital, a large and handsome stone structure near the City Hall, Camden, have at last decided to open that institution about the 1st of June for the reception of patients. The building was erected about nine years ago at a cost of nearly $100,000. It was built and endowed by the Cooper family, who with the Kaighns were the original settlers of Camden long before the Revolutionary War, and who own large tracts of land and valuable property in that city. The hospital has never yet been opened, because the income from the endowment fund was not deemed sufficient to run the institution. The fund has been accumulating, and now amounts to over $200,000, the income from which is about 10,000. The Board of Managers, which is composed of representatives of the estate and prominent citizens of Camden, at their recent meeting decided that this was sufficient to warrant the opening of the hospital, and the necessary physicians, nurses, and employees are being secured. There will be fifteen beds in use at first, and the number will be increased as the

income grows larger. The management will be regular, as this is provided for in the bequest, but there is no restriction as to admissions on account of race, color, or religion.

Staufer's Gynecological Instruments.

The hard rubber gynecological instruments manufactured by S. S. Staufer have been before the profession a number of years, and without any "pushing" have steadily grown in favor by their own merits. It gives us pleasure to call the attention of our readers to them, and to recommend them from our own experience. In various obstinate cases we have found them the most satisfactory of any we have tried, and letters from physicians in various parts of the country make the same report. There are two such before us now, one from Kansas, another from Albany, N. Y., speaking in warm terms of the excellent results obtained, and the neatness and convenience of the various appliances. We insert a cut (No. 1) of Staufer's Uterine Examining Case, and two cuts (Nos. 2 and 3) of his plan of support. Full catalogues and descriptions can be obtained by addressing him, P. O. Lock Box 936, Philadelphia.



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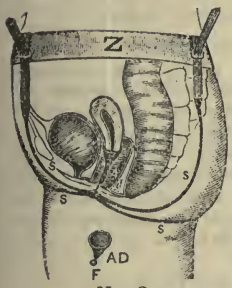

No. 2.

No. 3.

Therapeutic Improvements.

Horsford's Acid Phosphate.

We have in a number of instances made use of this preparation when desirous of invigorating the nervous system, and combating the effects of hard work, anxiety, debility from age or disease, exhaustion from heat, and similar conditions pointing to a depleted nervous supply. In the majority of cases the effects have been highly satisfactory, and the patients themselves recognized the prompt and pleasant action of the medicine. It is an excellent preparation of active phosphate, and enjoys a well-deserved popularity.

Anderson's Vaginal Capsules.

These capsules are of carbolized gelatin, filled with antiseptic absorbent cotton. They are easily introduced and a thread is attached for their removal. The medicating substance is dissolved and the cotton is steeped in the fluid. The active agent is thus applied to the os for a long period of time, and much more conveniently than by the use of a speculum. They appear to be a highly desirable addition to the gynecological armamentarium.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended February 28, 1885.

Purviance, George, surgeon. Granted leave of absence for one week, February 24, 1885.

Kalloch, P. C., assistant surgeon. When relieved, to proceed to Pittsburgh, Pa., and assume charge, February 27, 1885.

White, J. H., assistant surgeon. To proceed to Savannah, Ga., and assume charge, February 24, 1885.

College of Physicians and Surgeons of Baltimore.

At the annual commencement of the College of Physicians and Surgeons of Baltimore, held March 13, one hundred and fifty-four graduates received their diplomas. The prize graduates were: John W. Coughlin, Massachusetts; Frank C. Breeder, Pennsylvania; James C. Hurst, Virginia; Wm. S. Gardner, Ohio; Amos L. Gage, Maryland; A. D. Marks, Indiana; Moore S. Falls, District of Columbia; Thomas B. Perry, Georgia; Walter T. McCoy, Indiana; John R. Flanigan, New York; and A. L. Hutto, South Carolina.

Prof. Harrison Allen Resigns.

At a meeting of the trustees of the University of Pennsylvania, March 3, the resignation of Dr. Harrison Allen, who has been professor of physiology at the University for some years, was received and accepted. Prof. Allen stated that his increasing practice rendered it impossible for him to longer occupy the chair.

Items.

—Dr. A. to Dr. B., discussing current magazine literature: "Now, I take *Life* every week." Dr. B., grimly: "I suspected as much."

—A druggist's apprentice was killed a few weeks ago, at Kingsbridge, England, by the explosion of a mixture of potassium chlorate and sulphur while making "red fire."

—Dr. William L. Zuill, who is a graduate from the medical department, has been elected professor of surgical pathology in the veterinary department of the University of Pennsylvania.

—In the *New York Med. Jour.*, February 14, 1885, Dr. W. T. Bull reports a case of gun-shot wound of the intestines treated successfully by laparotomy with suture of the intestines.

—Mrs. Marshall Hall, the widow of the great physiologist, died on the 14th of January, at the house of her nephew, Dr. Marshall Hall Higginbottom, Nottingham, England, aged 83.

—In the *Boston Med. and Surg. Jour.*, February 5, 1885, Dr. E. S. Wood reports a case of chronic diffuse nephritis and amyloid degeneration of the kidneys, complicated, toward the close of life, with glycosuria and inosituria.

—Dr. Detmold, of New York, regards as a pathognomonic sign of syphilis, a permanent edema over the anterior surface of the tibia, in cases of periostitis of that bone. In no other case, in all his experience, has he ever seen it entirely disappear, and hence its great diagnostic value.

—The death is announced of Professor Friedrich von Stein, who held the chair of Zoölogy at Prague for more than thirty years. His chief work, published in 1854, was on the Development of the Infusoria. Prof. von Stein was a distinguished pupil of Johannes Müller.

—Acne is often reflex from urethral irritation. Dr. S. Sherwell obtained marvelous improvement in the faces of two patients, after long treatment had failed, by passing cold sounds every third day. The urethra was found sensitive, especially at about the junction of the membranous portion with the prostatic.—*Jour. C. and V. Dis.*

—M. Toulouze describes in the *Union Médicale* some old surgical instruments recently found during some excavations on the site of an old Roman road in the Rue Clovis in Paris. He believes that they date back to the period of Galen. They consist of an epilation forceps, a probe, and an ear-scoop—at least these are the uses for which M. Toulouze regards them as applicable.

—Lawson Tait, in the *Brit. Med. Jour.*, gives his method for the radical cure of umbilical hernia by abdominal section, and considers it applicable to other forms of hernia. He opens the sac, frees all adhesions, cuts off omentum that may be in the way, pares the edges of the ring, and stitches up the wound with a continuous silk thread, which he leaves permanently. The results have been most satisfactory.—*Can. Lancet.*

—Dr. Graham remarks: "That, let a fisherman forsake his boat, or a blacksmith his anvil, or a carpenter his bench, or a shoemaker his shop, and proclaim that he has made the wonderful discovery that he is full of magnetism and can cure all diseases, and, be he ever so uncouth and ignorant, he is likely to have, in a remarkably short space of time, a clientele of educated gentlemen and ladies."

OBITUARY NOTICES.

DR. NATHANIEL FORD.

Dr. Nathaniel Ford, an old doctor in Brooklyn, died recently at his home, No. 514 Henry street, at the age of seventy-one. He was attacked with pneumonia, but persisted in attending his patients when really too ill to go out. He was a graduate of Dartmouth College, and a physician in Brooklyn for thirty-five years, having a large practice. He left a widow and three sons.

MRS. SUSAN RIDGWAY BARTON.

Mrs. Susan Ridgway Barton, widow of Dr. J. Rhea Barton, of this city, died March 4, in the 88th year of her age. She was a daughter of John Jacob Ridgway, in honor of whom and a sister the Ridgway Library was named. For many years Mrs. Barton resided at Juniper and Chestnut streets, the site now occupied by the Keystone National Bank. Subsequently she erected a handsome residence at Broad and South streets, which did much to improve that neighborhood. Mrs. Barton was highly esteemed for her charitable disposition. Two children survive her, Francis Barton and Mrs. Williams.

DR. SIMEON A. FOSTER.

Dr. Simeon A. Foster, who died at Jacksonville, Florida, on Sunday, March 8, was born at Hillsdale, N. Y., in 1843, coming from an old and well-known family. He was graduated from the Medical Department of the University of the City of New York in 1867, and began practicing in South Egremont, Mass., where he remained for three years. On returning to New York city he became identified with the New York Orthopœdic Dispensary and Hospital, where he remained until last December, when his resignation of the position of senior assistant surgeon was accepted by the trustees. For a year before his death he was an invalid from consumption. He stood high in his specialty, and devised an efficient apparatus for the treatment of diseases of the knee-joint. He was a widower, but leaves two children.

JOSEPH KLAPP, M. D.

Joseph Klapp, M. D., a well-known physician, died of pneumonia recently, at his residence, 622 Spruce street, this city, in the 60th year of his age. The deceased came from a family of eminent physicians, and had been a practitioner for forty years. He was the medical adviser of many of the Catholic clergy of this city, a member of the County Medical Society, and one of the founders of the Howard Hospital. He leaves a widow, three sons, and five daughters.

JAMES D. W. TEMPLE, M. D.

Dr. James D. W. Temple died at his residence, in the town of Kenton, Delaware, March 6, 1885, of congestion of the brain. He was thirty-five years of age, and was a very genial, social gentleman. He was a member of the Legislature of his State two years. He graduated at Jefferson Medical College in 1874, and was very prominent and successful in the profession of his choice. He leaves a wife and family and a large circle of friends to mourn his loss.

MARRIAGES.

LONGSDORF—ERNST.—February 18, 1885, in Jacksonville, Pa., by Rev. G. M. Reed, assisted by Rev. J. F. Diener, Harold H. Longsdorf, M. D., of Dickinson, Pa., and A. Ella Ernst, of Jacksonville.

NEAL—LEISENRING.—March 5, 1885, at the Presbyterian Church, Upper Lehigh, Pa., by Rev. J. W. Bischoff, Henry M. Neal, M. D., and Miss Ada L. Leisenring, both of Upper Lehigh, Pa.

SPEAKMAN—CONNOLY.—February 16, 1885, at Pau, France, by the Rev. George Brown, Howard D. Speakman, M. D., of Woodbury, N. J., and Helen, daughter of James Connoly, formerly of New Orleans, La.

WATKINS—BERRY.—December 26, 1884, at Stillwater, Minn., by Rev. R. J. Creswell, of 1727 3½ Avenue, (So.) Minneapolis, Minn., Olin S. Watkins M. D., of N. P. Junction, Minn., and Miss Olive Berry, of Stillwater, Minn.

WILLIAMS—ALFORD.—February 19, 1885, by the Rev. H. L. Duhring, at All Saints' Parsonage, No. 740 South Twelfth Street, Mr. Charles N. Williams, M. D., and Miss Emma J. Alford, both of this city.

THE

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Original Department.

Communications.

HYGIENIC AND THERAPEUTIC VALUE OF ENFORCED RESPIRATION.

BY T. CURTIS SMITH, M. D.,

Of Aurora, Ind.

It is impossible for man to live without respiration. The number of respirations normally is about eighteen per minute. Any condition that causes the number to fall far below or to reach far above this is, as a rule, seriously pathological, and must of necessity be corrected if life is to be long maintained.

A mere glance at these facts will very clearly teach us the importance of correct and perfectly normal respiration. If I should say that very many healthy people do not use all their lungs for respiration, and that this is so habitually, some of you may be surprised. Yet this is very true, and especially so with men of sedentary habits—students and women. Some of these may be "too lazy to breathe," yet not fully conscious of it. It may be better to say they are "too careless to breathe," or have never considered its full importance. Dr. J. H. Tyndall (Treatment of Consumption, p. 85), has well said: "The importance of knowing how to breathe cannot be over-estimated. No line of treatment (of lung diseases) at home or by change of climate should be inaugurated without thorough instruction in lung gymnastics, in the mechanism of breathing. Until you have paid close attention to the subject for a number of years, you will never know how many human beings do not know how to breathe, and through which organ to breathe. Respiration, this most important of all functions of life, is by some carried on superficially; by others pervertedly, and contrary to physiological requirements."

"Breathing is a function which should be exercised slowly and profoundly; a requirement which can only be fulfilled by breathing through the nose. Breathing through the mouth leads to superficial and often rapid breathing; still oftener to snapping off the air."

We are often called on to prescribe for patients or give advice for relief of those who are of sedentary habits, as book-keepers, clerks, women, or students, who will complain of pain in the upper half of the chest, or of at least a very uncomfortable feeling of depression in the breast or lungs. These patients often express a fear of organic lung trouble, and that consumption is threatening them. In such cases we will very often note a languid expression or a semi-melancholic appearance. It is also not at all uncommon to note a sallowness of skin, a feeling of inability for any considerable manual effort, dyspnœa when the effort is made, or that the patient becomes quickly exhausted, is constipated, has hebetude of mind, and very little disposition to do more than absolute duty demands.

If now we thoroughly explore the chest, we do not find any revelation of actual lung disease, yet we are quite sure to note the presence of very feeble respiration all over both lungs. We may also find seeming or real emphysema, due to changes resulting from sub-acute inflammation or hypostatic stasis in a circumscribed section of lung tissue, or over a considerable area of one or both lungs. Dr. Carl Seiler has taught that

such a condition may result from a partial or complete disuse of a portion of the lung, that this condition is most apt to be connected with bronchial catarrh, especially of the chronic form of it, or from circumscribed pneumonia, a lobular pneumonia, tubercular deposits, and in lungs otherwise healthy by long-continued partial or entire disuse of portions of the lung.

These conditions often lead to destruction of the cell walls by their breaking down. The debris of detached epithelium will undergo decomposition, the cell-wall becomes thin and finally destroyed, and several air-cells are thrown into one, or if from inflammation, they may become solidfiied so that air may not enter into them. Such cavities are small but real, and such solidified portions may for a time seem harmless, but will tell on the patient's vital capacity very materially in time, and will form small sections that invite lobular pneumonia or tuberculosis, whenever occasion or opportunity may offer.

Most of the cases coming under my notice who complained of the pain, aching or soreness in the breast, some dyspnœa on moderate exertion, etc., have been those of sedentary habits, as students, tailors, book-keepers, teachers, or women whose work keeps them sitting or bending over it, or those whose employment does not require any considerable manual effort. Often the pain in the breast will only be muscular, and need nothing more than a good warm application or friction to relieve it.

Physical exploration will reveal the fact that there is feeble respiration, and if the patient is asked to take a full, deep breath, he will heave his shoulders up, draw in his abdominal muscles, and draw hard to get a deep respiration, but scarcely, if at all, succeeds in getting more air than usual into his lungs. The fact is, he has not taken a deep, full respiration for so long, that much of the lung tissue has lost its resilient elasticity, and muscles concerned in respiration have never known or have lost their full power of exercise.

It is with these muscles as with others. One may not use the arm for a long period of time, and then when he tries it he is quite surprised at the weakness of that arm. Extra use of it develops also great power in that same arm. It is just so with the lung tissue and with the muscles of respiration. Their long partial disuse weakens and renders them incapable of performing their full function in the matter of healthy respiration.

There is another feature of these cases worthy of note. They are nearly always constipated. This condition is not altogether due to insufficient physical exertion, but is in part due to incomplete or partial respiration. Since Prof. Graham pointed out how the respiratory movements of the muscles promote the peristaltic movements of the intestines, we have been able to see more clearly the relation existing between the functions of the muscles that supply the respiratory strength, the abdominal muscles, and the movements of the intestines themselves. If the respiratory muscles perform their duties but partially and but feebly, we can see that this failure, added to insufficient physical exercise, becomes a strong factor in the etiology of constipation, as well as other functions of the abdominal organs. The impaired functions of these organs will lead to lassitude, melancholic despondency, so-called liver complaint, imperfect assimilation of food, and the host of collateral derangements growing out of these complaints, all more or less traceable, directly or indirectly, to long-continued imperfect respiration.

No one need be told how the blood becomes imperfectly oxygenized by this same source of evil, nor need to be told of its consequences. Even the laity know much about this. Add to this imperfect breathing the confinement for many hours daily to a room where ventilation is very defective, and you can readily see how the general system will soon suffer, and the nervous and respiratory systems in particular.

If now, a person affected as before described is taught how to take full, deep, long inspirations and forced expirations, he may soon rid himself of the pain or soreness of his chest-walls and of the lungs themselves. Complete expirations are quite as necessary as long full inspirations. For instance, every time we breathe we take in about 320 cubic centimetres. We also expel about the same quantity at every expiration. But we do not expel always the same air that is taken in at each inspiration. The residual air is therefore very considerable, and this of necessity becomes more loaded with carbonic acid gas than does the air that is immediately expelled.

Now, in imperfect respiration the residual air is more slowly changed than it should be, and if there is partial or complete atalectasis of some portion of the lung, where the air may remain long shut off from the free exchange that ought to go on in respiration, we can readily see that serious consequences may result from this condition. We can further see that this partial or complete atalectasis may occur from imperfect respiration, and especially if there is or has been present lob-

ular pneumonia or chronic bronchitis. If in this condition, the residual air remains long in the air cells, they being more or less completely shut up from the currents of air that sweep in and out of the lungs. Then we see that this air becomes poisonous. The epithelium of the air cells decomposes, the cell walls give away, several cells or many cells are turned into one, and still the emphysemic condition continues, and the poisoned air remains shut up, to do all the mischief in its power to the lung tissue.

But even where it is not thus shut off from the respiratory currents, but for want of complete expiration remains too long in the lungs, the excess of the poisonous gases it becomes charged with cannot do other than mischievous work, which in a subject predisposed to tuberculosis invites the full development of that fatal malady.

But in such cases I believe we have, in forced respiration, a valuable means with which to accomplish complete relief, or to at least assist in reaching such a desirable end. Let a patient who comes with soreness of breast or lungs, a little cough, dyspnœa on exercise, lassitude, easily exhausted, rapid pulse on slight exertion, constipation, mental hebetude, etc., commence at once these forced inspirations and expirations, and practice this for ten to fifteen minutes from four to six times every day, and with proper measures otherwise he will soon feel like a new man. He will need very little medicine, often only a placebo, and will need mostly hygienic management as to diet, hours of work, exercise, sleep, etc.

Tyndall says (*loc. cit.*), "Lung gymnastics proper should be carried on in the open air, while at work if possible, or while walking or standing still, or in a well-ventilated room. The exact limits to which actual gymnastics should be carried on at home, or in a gymnasium, often tax the best judgment of the physician. Nearly all * * * * performances require more or less severe straining of the pectoral muscles, and sudden calls upon the heart for increased action."

"While walking, the patient should as frequently as possible (say every ten or fifteen minutes) take deep inspirations and expirations without straining, from six to eight times in succession; which act completely empties and refills the lungs."

How is this best done? Certainly not through the open mouth, but through the nose. Formerly, I was in the habit of directing my patients to breath through a common quill placed between the lips, both for inspiration and expiration; but a little consideration leads to the better plan of breathing slowly through the nose, unless there is so much obstructive nasal catarrh as to prevent this method.

"The air (Wagner, quoted by Tyndall,) in its passage through the tortuous channels of the nose, is raised to the temperature of the body before it reaches the larynx; this can easily be demonstrated. On a cold day let one breathe through his mouth in the open air, the sensation of cold will at once be felt as far down at least as the larynx, and an irritating cough (possibly) be induced. No matter how low the temperature may be, the sense of cold is never experienced below the border of the soft palate, so long as breathing is carried on through the nose with closed mouth."

"Let me remind you again that the function of the lung is a passive one, and the result of the combined labors of the other organs, and you will have an idea of how a neglect of this performance may lead, not to local disturbances only, but to disturbances affecting the whole organism. This, because the introduction of oxygen for burning purposes and the exhalation of carbonic acid, representing in part the effete products—this introduction of air is not 'food for the lungs,' but for the whole organism at large." This we all know to be true, and, therefore, the more completely the respiration is carried on, the better the functions of other organs are carried on also.

How often it was noted during the late war that men went from the store, factory, shop, counting-room, and school-room, with all the symptoms we have named, and many of them aggravated cases, and were soon entirely relieved of all trouble of this kind.

All of us have ordered men to leave their sedentary habits or employments and go to out-door, active occupations, because of the very conditions we are trying to describe. They soon recover and become hardy. Not least among the factors tending to their recovery is the improved respiration effected and accomplished by the more active out-door employment. The advantages of walks, gymnastic exercise, horseback riding, lie largely in the improved oxygenation of the blood brought about by improved respiration; and this in turn causes the liver, stomach, heart, brain, and all the tissues to perform their functions better, waste and repair reach a normal balance, and so general improvement is effected.

But we find very many subjects who are so situated that they cannot make the needed change to active or passive out-door life, and so we must relieve them where they are. We may

tone them up, we may stimulate the torpid liver, or correct the lithiated urine, so often present in such cases; but this is only patch-work after all.

If imperfect respiration is at the bottom of all the trouble—as it often is—we need to teach the subject a lesson in physiological breathing the first thing, and then attend to diet and constipation afterwards. For instance, show him how to swell out full and round the whole chest, by a deep inspiration, elevating and throwing back the shoulders, and then when he has gotten into his lungs the last atom of air possible, to then shut it in or hold it in tightly for just a little time, and then to let it off slowly, blowing out every atom of it if he possibly can by forcible expiration, drawing the shoulders forward and pressing in the chest to the smallest possible compass, thus throwing out most all of the residual air, and all this through the nose, with mouth tightly closed. Let him take a half dozen or more such forced respirations a dozen times a day, and he will soon double his vital capacity, and relieve himself of most of his supposed chest trouble. Such forced respiration will compel every air cell possible to freely admit wholesome air into the little spaces, and to expel it also, and some air cells that do not often perform their functions healthily will be compelled to normal duty, and so healthy lung tissue will be maintained, and sometimes diseased lung tissue will be made healthy, oxygenated blood will be given to the general system, and our patient will still continue in his employment and yet recover.

I have myself reached, and have seen others reach, a difference in chest circumference, in a short time, of five inches between forced inspiration and expiration. Also I have seen them after a short time able to take a few forced respirations and then take a deep inspiration, and hold it a full minute with perfect ease. Personal experience is what first called my mind to this point, and then quite frequent observation of others after forced respiration has taught me what may be accomplished by it, and how much good this simple means may compass for us. It cannot be expected to compass the cure of extensive organic lesions of pulmonary tissue, tuberculosis, extensive pleuritic adhesions, etc. It is simply commended for the class of cases above described, and this is a very large class of our town and city people, as all physicians very well know.

—The library of the University of Aberdeen (Scotland) contains over 90,000 volumes, open to all members and matriculants under reasonable conditions.

LACERATION OF THE RECTUM, BLADDER, AND PERITONEUM, BY A FOREIGN BODY THROUGH THE ANUS.

BY TOM. M. THROCKMORTON, M. D.,
Of Derby, Iowa,

(*Concluded from page* 360.)

Some writer has stated somewhere, with how much of truth I am not prepared to say, that all deaths from chloroform have taken place with the patient on the back, and that there is much less, if not immunity from danger, when lying on the side.

In a short time she will learn how to use it herself, and may be trusted to hold the handkerchief in her own hand; inhaling as the pain comes on and withdrawing the hand as it passes off. I need not say, however, that she should be closely watched, with the finger almost constantly on the pulse during inhalation; and it is a good plan to arrange the hand in relation to the face in such a way that it will naturally fall away from it should insensibility be produced.

In this way the pain of labor may be very much mitigated, and generally without retarding the force of the uterine contractions, or endangering either the mother or the child.

Sometimes, however, it seems to cause partial inertia of the uterus, and check the progress of labor. Then we should withhold it altogether, and give a pretty full dose of some alcoholic stimulant or ginger tea, and in a short time the uterus will regain its activity, and the labor will progress with less suffering than if the anæsthetic had not been administered.

In all cases of puerperal convulsions, chloroform is the sheet-anchor, and second in value to venesection only: and I think if I had to choose between them, I would take chloroform. It may be used with advantage in case of threatened eclampsia, indicated by headache accompanying an œdematous condition of the system.

In a case that occurred in my own practice several years ago, after full venesection, and a stimulating enema, I warded off the convulsions for six hours by keeping the patient wholly or partially under its influence, and delivered her of a living child. The use of the anæsthetic had to be continued nearly twenty-four hours before the tendency to convulsions ceased. It was supplemented after delivery by the use of aconite and bromide of potassium. The child had convulsions for forty-eight hours, and was saved by the use of the same remedies.

The case is reported in full in the Transactions of the Wisconsin State Medical Society for 1875.

There is no doubt that the use of chloroform predisposes to post-partum hemorrhage, and it is therefore quite important, when having used this agent, to administer a pretty full dose of ergot at, or just before, the completion of the second stage, and to be sure that the uterus is fully and permanently contracted before taking leave of the patient.

I have stated that when properly used it is without danger. Perhaps this statement should be qualified. It, like all other powerful medicines, should be used with judgment and caution. People have their idiosyncrasies, and the same remedy does not always have the same effect on different persons. But if the administrator is watchful and careful, he will observe any unfavorable indications, and withhold it before any damage has occurred.

Dr. Wm. T. Lusk, of New York, read a paper before the American Gynecological Society, in 1877, on "The Necessity of Caution in the Use of Chloroform during Labor," in which he makes the following points:

1. "Deep anæsthesia, carried to the point of complete abolition of consciousness, in some cases weakens uterine action, and sometimes suspends it altogether."

As I have already stated, in ordinary cases anæsthesia should not be carried to that extent, and if its use seems to weaken uterine action it should be withheld altogether. And in cases of turning, when it is advisable to produce complete anæsthesia for the purpose of muscular relaxation, as soon as the feet are brought down we should wait the removal of its action, so as to have the benefit of uterine contractions in completing the labor.

2. "Chloroform given in the usual obstetrical fashion, namely, in small doses during the pain only, and after the commencement of the second stage, may in exceptional cases so weaken uterine action as to create the necessity for resorting to ergot, or the forceps."

In answer to this, I repeat again, that its use should never be persisted in when there is the slightest evidence that it weakens uterine action.

3. "Patients in labor do not enjoy any absolute immunity from the pernicious effect of chloroform."

This proposition is contradictory to the opinion of the majority of writers on this subject, and especially those of Great Britain.

Dr. Lusk backs his opinion, however, by cases in proof, of which he gives five, all being free from cardiac or pulmonary complications.

A careful analysis of these cases will show, I think, that either it was not properly administered, or that there was a peculiar idiosyncrasy that would preclude its use altogether.

In the first case the patient struggled, and the assistant closed the funnel over the respiratory passages—a proceeding that should never be permitted in the administration of chloroform.

Alarming symptoms were produced, but the patient was resuscitated.

The second and third cases were of the same patient in two different confinements.

This person evidently had an idiosyncrasy, making it dangerous to use chloroform at all. She recovered from its dangerous effects.

The fourth case was under the care of Dr. Colting. Head about emerging, when a slight convulsion took place. Chloroform given, and repeated during returning pains; tremor occurred, and pulse ceased.

The description of this case is so indefinite that we cannot form a correct opinion of the cause of death; but it is quite probable that if the rules for the administration of chloroform had been strictly observed, the result would have been different.

In the fifth case, chloroform was given preparatory to version, under direction of a Sister of Charity in charge of the hospital ward. As the patient did not rouse after the operation, a surgeon was called in, who found the pulse thready, the face blue, and respiration imperfect. In ten minutes the woman died.

It would be of interest in this case to know how long this state of things had continued, and whether or not the anæsthetic was promptly withdrawn on the first appearance of these symptoms. The proper moral of this case is, that the administration of chloroform should never be entrusted to a Sister of Charity, unless in case of absolute necessity, and then only in the presence of, and under the watchful care of a competent physician.

Some writers advocate the use of mixtures of chloroform and alcohol, or chloroform, ether, and alcohol.

Dr. Barr, of Philadelphia, is very enthusiastic over the following mixture, namely:

Ether,	3 parts.
Chloroform,	1 part.
Alcohol,	2 parts.

—and claims for it better effects with less danger than from chloroform alone. I have not used it, but from his description of its effects, I shall be inclined to do so at the next favorable opportunity. He gives it in all cases unless there are evi-

dent contraindications, and says: "The question Must I give it? should give place to, Must I refuse it?" After a large experience in its use, covering a number of years, he sums up its claims for general use as follows:

1. "The claim of the parturient for anæsthesia is unequaled by any other claim in the wide world."

2. "These claims will not have received a fair response until the anæsthetic is as common in the lying-in chamber as upon the operating-table."

3. "A proper anæsthetic is more directly indicated, and more safe, in the ordinary obstetric patient than in the surgical patient, case for case."

4. "We have an anæsthetic mixture capable of producing perfect immunity from suffering, without intoxication, without vomiting, without reaction or dangerous consequences."

5. "The babe offers no contraindications, since its safety is not jeopardized."

6. "Labor is not hindered, but rather hastened by the anæsthetic."

7. "Anæsthesia offers no contraindications for the use of medication which would be indicated in its absence."

I am not yet prepared to indorse all these conclusions of Dr. Barr, but it may possibly be well for our patients if we will take them into consideration, and practice accordingly, so far as we can do so consistently with our convictions, the prejudices of our patrons, and other circumstances that may meet us in our different cases.

On account of these prejudices, and the small, it may be, but nevertheless undoubted risk attending its use, I now scarcely ever suggest chloroform to my patients, unless I see a necessity for it; but if they ask for it, I never refuse it unless I can see some evident contraindication.

REFLECTIONS AND SKETCHES OF TOWN AND COUNTRY PRACTICE.

BY GEORGE HILL, M. D.,

Of Hughesville, Pa.

VENESECTION IN LABOR.

The remarks of Prof. S. D. Gross on lacerations of the female sexual organs, at the last meeting of the American Medical Association, should be twice read by every practitioner of medicine in the country; especially that part touching blood-letting at and before labor.

He has not covered the entire ground, to be sure, but if the teaching there enunciated is heeded, many lives will be prolonged and much suffering prevented. And a further inference is that of an unwarranted neglect on the part of the profession generally in the use of this agent—an agent, in very many emergencies, if properly directed, far superior to any other single element in the whole range of therapeutics. It is fair to opine that the *use* and *abuse* of blood-letting must soon again attract the attention of the medical profession that it merits. And certainly the time has fully arrived when those who have experienced both, and know by long and cautious use its just claim, should place their testimony where it will tell. Human life is not cheap enough to tolerate anything short of this.

TYPHOID FEVER.

The malady known as typhoid fever has been prevailing for the last three months in the east and west portions of this borough, with intervening streets free from the disease. This scourge is a familiar antagonist, I having for many years been in combat with it, in numerous invasions, both here and in Bloomsburg and vicinity. Practical observation enables the writer to assert that it is a domiciled endemic, and has been for a period of forty-seven years—asleep sometimes, but never dead.

It is a well-established fact, that the primary lesion in this disease is always found in the ileum, and in its first stage of development in the lymph follicles, in Peyer's patches nearest the cæcum, but rapidly radiating its hidden forces, until the whole *citadel* is in confusion. And this in a manner, to some extent at least, analogous to another parasitic disease, which is always initiated in the mucous follicles of the tonsils, viz., diphtheria. In typical cases the lesion of the disease in hand rapidly extends itself, not only in the ileum, but soon its effects reach the lymphatic glands, and the *pseudo-poison* radiates throughout all the splanchnic visceræ of the system, until general impoverishment of both fluids and solids prevail, producing what is called the typhoidal state.

Liebermeister contends that the cause of this disease is a poison. In this he is persistent. Not a gas, but "*a solid*," requiring secondary development. Hence, he declares that it is never directly transmissible; which may or may not be true. *A poison!*

Who, on exposure, is exempt from the direful results of any substance, mineral, vegetable, or animal, known as a poison? What then, when a dozen or more persons are alike exposed to *this poison* over and over, and three are stricken and nine are in no way whatever affected? An obscure analogy!

But experience tells, with almost unerring certainty, that fear, anxiety, overwork, and loss of rest, are essential factors favoring the development of this infection. But this much is true. It resists gravitation; seeks its nidus with unerring certainty, and, under favoring conditions, does its work with unvarying method and success. And last, it perpetuates its existence in defiance of all its enemies.

September 20, 1884, I was called to see Mr. A. N——, aged forty, six miles out, where he had gone, and had been prostrated for three days. During two weeks previous he had been under the care of Dr. W. H. in one of the infected portions of the town, but at no time confined to the bed or house. He was now in the second or arid stage of the disease. Mouth partly open and dry. The muciparous follicles and salivary glands in entire suspension, with the gradual formation of the deposit known as sordes upon the tongue, teeth, and lips. I attended this man two weeks, when he died. Among the features of the case were, pulse 110 to 140; hemorrhage from the bowels; meteorism; hiccough, etc. This much for what follows: Three persons were his special attendants; first, a married sister, aged twenty-five; second, a single sister, aged twenty-three, and Mrs. R., a neighbor, aged forty-eight; the latter only an occasional night assistant during the latter part of his illness. All were stricken with the disease within a few days of each other; *and all died.* Mrs. R. was taken October 5, less than ten days after her first attention to the sick man. The inference in her case is that she must have received the *mature* or *immature* germs in that well-ventilated sick room, and nowhere else, there being no other centre of infection nearer than six miles.

Dr. E., the attending physician in these cases, told me to-day, November 26, that what is termed the *antipyretic treatment* was carried out as far as practicable; that is, "thirty-five to forty grains of quinine were given at a single dose, and if the temperature was not brought down two degrees, the same was repeated the next day," etc. "*And all this, too, without any manifestation of cinchonism!*"

Why should there be? with a brain already overwhelmed beyond response to almost any call.

(*To be continued.*)

—An exchange remarks that "rich folks do not hire poor doctors to cure them. A doctor to cure rich folks must live in a fashionable street, in an expensive house, and in elegant style." Too true! "That's the way the money goes."

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA,

BY WILLIAM PEPPER, M. D., L.L. D.,

Provost and Professor of Theory and Practice of Medicine in the University of Pennsylvania.

Reported by William H. Morrison, M. D.

Tape Worm—Erysipelas—Secondary Parotitis.

Gentlemen: I shall in the first place ask your attention to two specimens of tape worm which I have here. One was passed by a patient who was shown to you a short time ago by one of my colleagues. Almost the entire worm, with the exception of the head, is here. The patient from whom the worm was removed was aged 23 years, a painter by occupation. He does not remember ever eating any raw meat, smoked ham or beef. Fourteen months ago he began to have indefinite symptoms, such as dryness of the nose, obscure pains in the abdomen, occasional attacks of diarrhœa, some increase of appetite, and soon began to pass segments of tape worm. He had been treated four times before coming to the hospital, in what way is not known. On two occasions the greater part of the worm was brought away, but the head remained. On the other two occasions the treatment was entirely unsuccessful. On several occasions he has fainted, becoming entirely unconscious, but there has been no fully developed convulsive attack. He is nervous, and has lost considerable flesh.

In this patient there were rather unusually distinct symptoms attributable to the presence of tape worm; some of these symptoms were abdominal, while others were reflex. As you have heard, he has been subjected to five treatments, three of which were only partially successful, while two were entirely without result. If the head is left, the chances are that in a few months the worm will reform and links will again appear. We have in the specimen before us the narrow links of the neck, but the head is absent. The portion between this and the head may have been broken off and lost in the stool, so that it does not follow that because the head is not found it has not been passed. If, however, the head is not found, the chances are in favor of the reappearance of the worm.

The last treatment employed in this case consisted of preliminary fasting and purging, followed twelve hours later by one ounce of koosso.

The second worm which I show you was removed from one of my own patients. It is, as is the first worm, a specimen of the beef worm, or tænia mediocanellata. This patient exhibited fewer symptoms than did the case just described. He was first treated in May, 1884 (nine months ago). He fasted one day and took a dose of castor oil; the following morning he took two ounces of turpentine with four ounces of castor oil, with the result of bringing away only six feet of the worm. That was a severe dose, for as you know the ordinary dose of turpentine as a parasiticide is from one-half to one ounce, given either in emulsion or with castor oil. It is a reliable rem-

edy, and will often bring away the entire worm; but I do not consider it to be as reliable as some others which I shall mention.

A month later, the worm had again become fully developed, and links reappeared in the stools. He then, after fasting, took one dose of the oleo-resin of male fern without any result whatever. This is, perhaps, of all remedies, the one which gives the most uniformly good results. It certainly ranks as high as any other remedy, yet in this case it was ineffectual. In many cases, this curious fact will be noticed, that either from some condition of the patient, some special condition of the intestinal canal, or some condition of the worm itself, a remedy which succeeds in other cases, or a remedy which has at one time succeeded, will, in the same patient, at another time fail.

Then, with some preliminary treatment, koosso was taken with no effect whatever. Then pumpkin seed was taken without any effect. A short time after this, he took an infusion consisting of two ounces of pomegranate root in a pint of fluid, following this in an hour and a half with an ounce and a half of turpentime, with three ounces of castor oil, This brought away twelve or fifteen feet of the worm, and secured an immunity of about two months.

In the latter part of September, two ounces of pumpkin seed were taken and thirty feet of the worm were passed, the segments being broken off at the narrow portion of the neck. This secured four months immunity; but in January the links again reappeared and koosso was again tried. After a day and a half of absolute fasting, an ounce and a half of koosso in hot water was given in divided doses, the patient keeping quiet in order to retain the dose. This was followed by castor oil, but no portion of the worm was brought away. After this, an infusion of pomegranate root was tried, which was equally unsuccessful. Two weeks later, links were again pased, and after some preliminary fasting and purging, a dose of pelleterine, prepared by Tanret, of Paris, was given. As you know, this is the alkaloid of pomegranate. This produced no result. Two weeks later, after fasting of one day, and with no preliminary purging, a second dose of pelleterine was given. This was followed in fifteen minutes with adose of compound jalap powder, and in fifteen minutes more, the whole worm, measuring forty feet, was expelled.

These two cases are excellent illustrations of the difficulties which attend the treatment of this condition, and also of the difficulties of deciding as to the value of certain remedies in the treatment of tape-worm. The bottle which I show you contains one dose of Tanret's pelleterine. The alkaloid, which exists only in small proportion in the root, is here in a concentrated form. This is an excellent remedy, but rather expensive, the price probably being in the neighborhood of $3.50 per dose. Pelleterine, the oleo-resin of male fern, and a good preparation of koosso, are probably the most reliable remedies in the treatment of tape-worm.

As I have already said, the differences in effects at different times may be due either to differences in the state of the patient, in the condition of the intestinal canal, or in the state and location of the worm. An important element in causing these differences in effect is differences in the reliability of the preparations themselves. One of the advantages of pelleterine is its trustworthiness.

The worm thus obtained has been examined by Dr. Leidy, who pronounces it a typical specimen of the tænia medio-canellata or beef-worm.

Cases will occasionally be met with which not only present the difficulties which these instances illustrate, but also added difficulties. A few weeks ago a young woman came to me with the history that she had had a tape-worm for three years, and had been treated by physicians and by quacks some six or eight times but not relieved, although on several occasions large portions of the worm were brought away. The last treatment had occurred nine months ago, since which time she had suffered more from the symptoms of tape-worm than ever before, yet no links had been passed. There was marked irritation of the stomach and bowels, the tongue was coated, the stomach irritable, there was a vague sense of distress and of movement in the abdomen. there was impairment of strength, low spirits, loss of flesh, itching of the nose and anus, and thelike. On two or three occasions she had taken preparations procured from quacks without bringing away any links. In this case the woman had been cured without knowing it, and had remaining a chronic gastro-intestinal catarrh, in consequence of the drastic treatment which she had employed. The more efforts she made to get rid of the supposed worm, the more she increased the local irritation which was the true cause of the symptoms.

Assuring her that the simple remedy which I was going to give her would act as a slow poison on the worm, if it were there, I placed her upon minute doses of nitrate of silver, and carefully regulated her diet. In a few weeks she was much improved, and began to gain flesh; and a few weeks ago she returned to her home entirely cheerful and bright, and with the intestinal catarrh in the way of being cured.

Such cases are to be carefully distinguished from those in which the worm is present but difficult to remove. I should insist upon the presence of links in the stools, or make one trial with some parasiticide, and treat the case on general principles, waiting for links to appear. Harm is done by the use of severe remedies.

As to the mode of administration, you have had in the history of these cases sufficient illustrations of the points to be attended to. All these remedies should be given fasting, with the patient at rest so that they may be retained. If there is a disposition to vomiting, a little aromatic spirits of ammonia or spirits of camphor may be given. The fasting should be continued for several hours after the remedy has been taken, or until purging has occurred. The question whether or not to give a purge before the parasiticide, will be determined by the special conditions present. I think that generally it is not necessary, and that it is sometimes undesirable. In the second case described, the pelleterine was was on the first occasion given after a purge, and it failed to act. The second time it was given without previous purgation, and was entirely successful. It may be that the administration of

a purgative, by exciting peristaltic action, may carry the remedy too rapidly through the bowel, preventing its action on the worm.

A purgative should nearly always follow the administration of the dose. For this purpose, castor oil, colocynth, or compound powder of jalap may be employed. It is better to allow two or three hours to elapse before giving the purgative, so that the remedy may have time to act throughout the intestinal canal. The worm is then enfeebled, and the violent peristalsis and profuse secretion loosen it from its hold and sweep it away. But with the best care and the most exact attention to details, our efforts are in some cases only partially successful.

I might mention another interesting case in this connection. Ten years ago a stout middle-aged man came to my office with the request that I should treat him for a snake that was in his stomach, and which he had swallowed while drinking from a spring in the country. This snake he said had grown to such a size that it would sometimes rise in his throat, and its movements disturbed his sleep. There is no reason to believe that such a creature can exist in the human stomach, for it would be digested. It is only the intestinal parasites that can survive. I determined that there were no round worms by the administration of a dose of santonin. The patient was evidently suffering from a gastro-intestinal catarrh, and these curious vermicular movements which he interpreted as dependent upon the presence of a living creature were due to this cause. My directions as to diet and treatment were only partially carried out, and he did not improve. H returned again and again, insisting that some powerful poison be given to remove the worm. Finally, he ceased coming, and I saw no more of him for several years. Two years ago he again returned, stating that he had been wandering over the country and had spent all his money in trying to have this snake removed. I gave him some simple remedy, and he again disappeared. He appeared here last week, stating that he had been doctoring ever since, but he had not been benefited, that now there were several of these worms; that one of them had worked its way under the skin, and had appeared as a lump under the shoulder blade. The lump had been removed by a surgeon, but the snake was allowed to slip back. Seeing that the man was evidently becoming insane, I told him that if he would come to the hospital I would cut the stomach open and remove the worms. If he comes, I shall make a long incision through the skin of the abdomen, apply caustic, stitch it up, and keep him in bed for a couple of months with a sore side. If something is not done, the man will evidently become insane.

Facial Erysipelas.

This patient is an example of a mild attack of facial erysipelas. This is a constitutional disease, but we do not know the nature of its special poison. It is one of the constitutional diseases in which one attack does not protect against a second, but on the other hand predisposes to a second attack. Those who have had it once are likely to have it again. There certainly is a close relation between idiopathic erysipelas and traumatic erysipelas.

Idiopathic erysipelas may practically be called facial erysepelas, so constantly does it attack the face. Usually it begins at one of the openings, as the ear, the angle of the eye, the nostril, or the corner of the mouth. There may perhaps be some little irritation which determines the point at which it starts. Beginning at one of these orifices it spreads, and this extension is one of the most characteristic features of the disease. Sometimes, unfortunately, it extends to the mucous membranes, and we have internal erysipelas, which is a very fatal disease. This is rare, except in bad epidemic states of the atmosphere. Nearly always the affection spreads over the face, more commonly going upward from the spot first affected, it spreads to the hairy scalp, going over the head, and ends at the root of the hair, or stops before reaching this point. Less frequently it goes down the back. The inflamed parts are swollen and of a bright red color. They are hard and tender to the touch, and separated from the surrounding healthy skin by a distinct ridge. The amount of swelling may be extreme, so that in strongly marked cases the patient is absolutely unrecognizable.

The disease begins with few prodromes. There may be lassitude, aching, rigors, and sometimes a little soreness of the glands at the angles of the jaw, and then the erysipelatous blush appears at one of the points which I have mentioned, and rapidly spreads.

Fever appears early and runs pretty high, not rarely reaching 103° or 104°, and sometimes even higher. The pulse is strong, full, and quite frequent. The patient is dull, heavy, and stupid, and not rarely, when the inflammation extends to the scalp, is there a little wandering delirium, particularly at night. Sometimes the nervous symptoms are much more severe, and there may be violent active delirium, or a tendency to deep stupor. In these cases the symptoms assume a typhoid aspect, the tongue becomes dryish and brown, the pulse more rapid and weak. There is often albumen in the urine, and sometimes tube casts are found, showing that there has been as a complication marked congestion of the kidneys, and even catarrhal nephritis, such as is found complicating zymotic diseases. The inflammation may lead to suppuration in the connective tissue, particularly in those situations where there is loose tissue, as at the angle of the jaw, under the chin, and beneath the eyelid. Such cases assume a grave aspect, and not rarely end fatally.

The prognosis of ordinary erysipelas which does not run into this typhoid condition is good, the vast majority of patients recovering in from nine to twelve days.

The treatment of erysipelas may be divided into the local and general. The local treatment does very little good. All kinds of remedies have been employed with the object of circumscribing the inflammation. Blistering, the application of nitrate of silver, and painting with iodine, have been used to limit the inflammation, but without success. Soothing applications have been made to the inflamed surface, such as alkaline washes, the hyposulphites, solutions of bicarbonate of sodium and laudanum, and laudanum and lead-water. Soft ointments, as of mercury and lead, have been applied to the surface, and protected

from the air with a linen cloth. To keep the surface moist, and to protect it from the air, are the main objects to be accomplished. The inflammation is a specific one, and ordinary applications do not produce any distinct result. Alkaline washes, with opiates or mild ointments of lead or of iodide of mercury, are as useful as any. I have lately painted over the inflamed surface an ointment of iodoform with cosmoline or a solution of iodoform in ether. I have not used it sufficiently often to say that it produces a definite result.

As regards the internal treatment, all are agreed in recognizing the immense value of large doses of the tincture of the chloride of iron. The average dose is twenty-five drops in a couple of ounces of water repeated every two hours. The prognosis of facial erysipelas has been materially improved by the discovery of the beneficial influence of the tincture of the chloride of iron over this disease. It should always be used when well borne by the stomach. Quinine in moderate doses, or if there is marked fever, in large doses, is desirable.

When typhoid symptoms present themselves, I have found turpentine very useful, continuing the administration of iron. When nephritis exists as a complication, I have not found it necessary to modify the treatment. Stimulus is to be employed if called for by the condition of the circulation or nervous system. I have found digitalis to act beneficially, particularly where the heart was weak or there was renal complication, giving it with the iron and quinine. There is albumen present in this man's urine, and the more carefully I have examined for albumen, the more frequently I have found it. It is present, probably, in from one-half to two-thirds of all the cases. In those cases attended with delirium and a disposition to stupor, the presence of albu- and tube-casts is extremely common. The frequency with which catarrhal nephritis occurs in zymotic diseases is not sufficiently appreciated. It is a very common occurrence, and explains many of the symptoms which are present.

This man is improving, and will probably be well in a short time.

Secondary Parotitis.

This case has, until within the past week, been under the care of one of my colleagues; I show her to you to-day to call attention to an acute affection from which she is at present suffering. She is seventeen years of age, small and juvenile for her years. Her father was killed by an accident, and her mother died of small-pox. She had the ordinary diseases of childhood, but otherwise was well until three years ago, when she had diphtheria. During convalescence, she was attacked with chills and fever, and since then has never regained her health. She came under observation four months ago, complaining with pain in the left side, and examination showed great enlargement of the spleen, which extended across the abdomen, encroaching somewhat upon the right side. Examination of the blood showed the number of the red corpuscles to be diminished, while the number of the white was slightly increased. She remained in the hospital, and has since then gradually increased in weight.

Within the past month treatment by the deep injection of Fowler's solution into the spleen was instituted, and about ten injections had been given, when ten days ago she was taken with severe pain over the spleen on movement, and the temperature went up to 102°. It, however, quickly fell to normal. The appetite was lost, the tongue was dry and glazed, and sordes collected around the teeth and on the tongue. Poultices were applied, and nine grains of quinia were given daily. She rapidly improved, the appetite returned, the tongue became clean. There was still a little pain on movement. This was, I think, an attack of local peritonitis excited by the injections.

On February 19, without any special warning, the temperature went up from 98° in the morning to 105.4° in the evening. It remained at this point for only a short time. Yesterday morning (20th), it was down to 102°, and to-day it is 99.5°. With this febrile action, there was the development of parotitis on both sides, although more marked on the left side. Both parotid glands are much swollen. They are hard and tender on pressure, and swallowing or chewing causes pain. It is easy to distinguish this from adenitis. In that case there are several glands swollen just below the angle of the jaw, but no swelling extends above the ramus, and there is absence of the peculiar shape of the parotid.

Parotitis or mumps, something like erysipelas, is either an idiopathic or secondary affection. Idiopathic mumps is a specific, contagious, constitutional disease, and far most common in children. It affects often one gland and then the other, sometimes both at the same time, but usually both before it is done. It is attended with marked swelling and hardness of the gland, pain upon opening the jaw, and upon pressure. There is moderate fever and occasionally slight nervous symptoms. It terminates by resolution in the course of from five to ten days. Occasionally, in the male, there will be a sudden subsidence of the parotid swelling and a transference to the testicle. With this, there is often the development of high fever, with a temperature running up to 105°, 106°, 107°, and threatening nervous symptoms from the hyperpyrexia, requiring the most prompt measures to reduce the temperature. In the female, the transference of the inflammation to the ovaries or mammary glands is less common.

Secondary parotitis occurs in septic conditions of the system. It is common in pyæmia. It is not at all rare in small-pox. A short time ago I showed you a marked case in a patient with typhoid fever. Unlike idiopathic parotitis, it is apt to run on to suppuration and is apt to discharge through the ear. The prognosis varies with the cause. In pyæmia it is of course nearly always fatal. Although I have seen parotitis in a number of bad cases of typhoid fever, yet they have generally recovered.

The cause of parotitis in this case is somewhat obscure. I am, however, disposed to attribute it to the traumatic irritation of the spleen, and that the disease is secondary in its nature, dependent upon the inflammatory changes thus set up in the spleen. The condition of the patient was a very grave one, or the injections would not have

been attempted. They will of course now be suspended.

The danger from this attack of parotitis appears to be slight, and the patient is recovering. I shall, however, bring her before you again, in order that we may carefully study the chronic conditions which are present.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(*Continued from page* 367.)

Dr. J. M. Anders read a paper on

Sanitary Influence of Forest Growth and Public Squares.

saying:

"Than the present there could, perhaps, be no more opportune season for making a careful examination of our theme. The public press, as well as scientific writers, not infrequently have been and still are raising a timely cry of warning against the wanton devastation of our primitive forests. That such remonstrances are not needless must become clear to any one who will take the trouble to carefully examine more particularly the recorded painful experiences of many oriental countries as the result of human improvidence—the physical history of this portion of the globe furnishing numerous examples. To mention only a few of the more striking: Spain, Southern Italy, Persia, Greece, and Southern Africa. It is the almost universal experience of tourists that wherever in past time the forests have been cleared away by a people, the effect has been most lamentable, the smaller streams drying up, followed by infertility of the soil, insalubrity of the climate, and frequently utter desolation. To further pursue this line of evidence would be unnecessary, in view of the fact that the writer proposes to bring forward the positive evidences at our command, showing how forests affect conditions of soil and climate.

"There is perhaps no element of this subject better understood than the influence which forests exercise mechanically. Clumps or belts of trees act as efficient intercepters of wind-currents, affording shelter and protection to humbler vegetation and man to the leeward, from the chilly blasts of winter as well as the drying winds of summer, thus having the effect of modifying extremes of temperature, rendering summer less sultry and winter less severe. In France the experiment has been tried of planting trees in belts one hundred metres apart, and with marked benefit to the climate, the happy effect in this instance being ascribed principally to their mechanical action.

"As has been frequently remarked by writers upon the subject, trees in masses or belts, or even heavy shrubbery placed between the originating points of the germs of malaria and human habitations, afford efficient protection from malarial diseases. From the multiplicity of recorded observations by physicians living in malarious districts, this fact may be looked upon as fully proven. Whether this effect is attributable, as most authorities believe, to a mechanical action, or as some have endeavored to show, to a chemico-vital process, is still, perhaps, a mooted question. Prof. Austin Flint has remarked that "malaria has an attraction for trees and other organic material." Now it has been recently shown that many species of plants produce ozone; and, as this substance has the power to destroy organic impurities or even disease germs in the atmosphere, it may, with good show of reason, be assumed that, to some extent at least, the germs of malaria are oxidized by the ozone developed by the forest. And may we not in this manner offer an explanation of the so-called affinity of Flint and others, which malaria has for trees and shrubbery? It is, however, highly probable that the influence of trees and humbler vegetation in this regard is largely mechanical. It would be an easy task to give numerous illustrations of the influence of forests in question, as for instance, when the removal of vegetable growth suitably located was followed by malarious diseases in localities where it had been previously unknown; but as this has been frequently done by medical writers, it is not deemed necessary here.

"During the warm season the temperature of the air of the woods is lower than that of the air outside. This is due partly to the cooling effect of the shade and, partly, as first pointed out by Petenkofer,* to the slight draught which is always caused by shade in the open air. Again, according to Ebermayer, the temperature of the trees of the forest is found to be lower than the air in the forest. There is yet another way in which forests cool the atmosphere. As will appear evident hereafter, one of the chief functions of woods in nature's economy is to maintain a proper standard of humidity of the air; and it is well understood that any increase in the humidity of the air reduces the temperature. Dr. Frankland is made to say that he considers the moisture in the atmosphere of England as 'reducing the temperature from fifteen to twenty-five degrees.'†

"Forests are great natural dispensers of moisture. Wherever a fair proportion of woodland exists, a considerable influence is thereby exerted upon the hydrometeorology of the region. This is due to a function actively carried on by plant life in general, viz., transpiration, and its high importance demands a moment's consideration. As the result of careful experimentation, it has been found that a single square foot of leaf surface, in the case of soft, thin-leaved plants, will, during fair weather, exhale aqueous vapor at the rate of one and a quarter ounces daily. At night the rate is only about one-fifth as rapid as during the day, and during rainy weather there is absolutely no evaporation. Upon a moment's reflection on the above rate of transpiration, it must become evident that the amount of moisture yielded to the atmosphere by a forest, is really marvellous. In order to give a more definite conception of the vastness of this process, it may be pardonable to introduce here a few deductions, based upon an experimental study of the com-

*Popular Science Monthly, February, 1878.

†Dr. Blodget, "Jour. Am. Med. Association," August 23, 1884. "Transpiration of Plants," Amer. Nat. for March, 1878, by author.

parative evaporation from leaves, the soil, and water. 1. It was found that transpiration from the forest was twice as great as from an equal area of open soil, even when the latter was kept moist. 2. That more water is emitted from a forest than from an equal body of water. Under these circumstances, it will not be considered an exaggeration to say that there exists a relationship between forest growth and atmospheric humidity.

"The old question, Do forests in any way influence the rainfall? is not as yet quite satisfactorily determined, a few acute observers claiming their effect in this direction to be entirely negative. But in view of the facts already stated as the result of direct experimentation it cannot be questioned that over and to some extent around the forest the air contains a greater proportion of humidity than is found elsewhere. By a careful computation, the writer has been able to demonstrate that not less than half of the rainfall during the summer months, or vegetative period in our latitude (which would be at least twelve inches), can be accounted for by transpiration, and this, too, where the percentage of woodland is only twenty-five. Add to these facts what has already been intimated as regards the demonstrable variation in the temperature of the forest and the air outside, and it is clear that we have here conditions strongly favoring local precipitation. Furthermore, it seems irresistible to conclude that a warm current sweeping over a country, and striking the cool, moist air overhanging and surrounding the forest and mingling with it, would result in condensation. On the other hand, should there come along a stray current of a lower temperature, this same moist canopy would doubtless have a portion of its contained moisture condensed in the form of rain. It should be distinctly understood, it is not claimed for forests that they increase the aggregate annual rainfall, since the total annual evaporation and precipitation bear a constant relation. The effect, then, of woods upon precipitation is local in character; and whilst they do not affect the general course of storms, they are capable of promoting gentle showers, and within certain areas and limits of time influence the amount and distribution of precipitation. Forests also produce abundant dews, which shed their enlivening influence to fields and valleys round about. When we remember that in some portions of our globe, *e. g.*, Egypt and Arabia, nearly all the moisture that reaches the earth is in the shape of dew, it will be conceded that this is no mean office on the part of sylvan nature. Numerous authorities might be cited in confirmation of the above position concerning the effect of woodland upon the rainfall, but time and space forbid.

"It is a fact of great importance that transpiration is not governed by the same physical laws as evaporation from soil and water, the chief exciting agent in the former case being the sun's rays, whilst the latter is mainly influenced by temperature and dryness of the air. This implies less variation in the amount of moisture exhaled from vegetation as compared with terrestrial evaporation, and thus *insuring a more uniform standard of humidity in the vicinity of our forests.* There is another fact which lends support to the same view, to wit: that the trees are at all times supplied with a pretty good abundance of moisture for transpiration—owing partly to the power which the roots have to attract moisture from every direction, partly to the retention of the rainfall in their network of rootlets, to be in due season absorbed by the myriads upon myriads of root hairs. Before dismissing the question of the relation of forests to atmospheric humidity, it seems incumbent to state briefly two minor propositions which, in some degree, affect it: First, that very little, if any, moisture is absorbed by the leaves from the atmosphere. Second, that the evaporation from the soil of the woods is interfered with by the leafy canopy above, which in a great measure prevents the rays of the sun from reaching the earth and warming it so as to facilitate the process. Thus it happens that there is only about one-half as much evaporation from forest as from open soil.

"The question here naturally arises, does plant humidity differ in any essential particulars from ordinary humidity? or, in other words, has it, regarded from a sanitary point of view, any important advantages over the latter? The fact already intimated, that forests supply moisture to the surrounding medium with great regularity, even in time of drought, must be looked upon as having a special significance in this connection. As shown by the observations of Prof. Tyndall, the humidity of the air very greatly influences the climate, and more particularly the temperature range. He has conclusively shown that the aqueous vapor in the air has the power to intercept nocturnal terrestrial radiation. When, therefore, the atmosphere contains the proper proportion of moisture, the daily range of temperature is not great, but, on the other hand, it is evident that a low humidity would admit of active radiation, and, in consequence, great nocturnal fall and daily variation in temperature. The greatest objection, it may here be said, to high and dry climes, is this great diurnal range of temperature. From these experiments of Prof. Tyndall, it is clearly established that the great uniformity of forest humidity would insure the most equable climate, with small daily fluctuations in temperature, which, so far as pertains to public health, is of higher importance than the average temperature of seasons.

"Forests produce ozone. In a previous article, the following, among other conclusions, as the result of numerous experiments, were reached: First, that foliage plants did not generate ozone. Secondly, that all flowering vegetation was capable of generating this substance.* Subsequently, additional experiments proved that the conclusion arrived at in the article here cited must be so modified as to include among ozone-generating plants those which, though not flowering, have *odoriferous* foliage. Branches taken from the pine-tree and the hemlock spruce (*Abies Canadensis*), were found to be active generators of this substance. There is, to a great degree, a confirmation of these researches in the observations of Dr. Nicholson, who found ozone more abundant in pine forests than the open country in summer,

* The Exhalation of Ozone by Flowering Plants. Amer. Nat., April and May, 1884.

but less abundant in winter ;* also in the statement of Dr. Schrieber, of Vienna, to wit, that the terebinthinate vapors exhaled by coniferous plants possess, to a greater degree than any other known substance, the power of converting the oxygen of the air into ozone,† It cannot be questioned but that ozone is the chief natural purifying agent of our atmosphere from all organic matter.

"As already incidentally intimated, the atmosphere of the pine and hemlock forests is impregnated with balsamic vapors. The observation has also been made that children playing among our common poppy plants will exhibit signs of the physiological action of opium. In view of such demonstrable facts, there can be no doubt of the correctness of the view elsewhere expressed; that it is quite reasonable to conclude that with the rapid transpiration of aqueous vapor from a tree or plant, as shown by our investigations, there are peculiar to the species, active principles, which also assume the gaseous form and are held in solution by the moist vapors given off.‡ Plant humidity, therefore, it will be concluded, differs vastly from that derived from dead organic matter, the soil, or bodies of water, since it is changed, purified, and probably endowed with medicinal properties in passing through the vital laboratory of the plant.

"In the next place let us consider the influence of forests upon the soil and running streams. It is a noteworthy fact that many of our smaller streams and rivulets owe their origin and permanence to forests. It has been incontestably shown by a host of observers, that where forests have been cleared away springs and smaller streams have quickly dried up, and have reappeared after re-afforesting the same districts. Again, in a perfectly conservative spirit, the same conclusion will be arrived at by thinking of the matter from a different standpoint, and considering how they act in producing this effect. Very much after the fashion of a sponge do the roots and meshes formed by the network of small rootlets entangle and retain the rainfall, preventing it from running off quickly into the streams, thus resulting in frequent freshets, to be followed by periods of drought. The influence of woods in preserving an equable supply and distribution of water is of great hygienic importance.‖

"The influences which forests exert upon the soil are highly important, but frequently misunderstood. From what has already been adduced as relating to the effects of forests upon local climatic elements and running streams, it may justly be concluded that they do preserve a more uniform degree of moisture in the soil in their vicinity. It is usually asserted by writers upon the subject that the soil of the forest is more humid than open soil. The explanation of this is to be found in the well-known facts, that its temperature is lower on account of not being exposed to irradiation, and that the covering of fallen leaves acts mechanically in preventing the escape of moisture.

"Under other conditions, as when located in marshy districts, forest growth has a decided drying effect upon the soil. This can be explained by the extremely active transpiration by the leaves of the trees. This process goes on at the same rate so long as there is moisture at hand, in this manner soon getting rid of the redundancy, especially during dry periods of time. Again, the trunks and branches act as large reservoirs for the storage of a great part of the rainfall, which is drank up by the roots almost as soon as precipitated. It would, therefore, be expected, from these considerations, that low marshy ground would be rendered drier by the cultivation of trees in due proportion, and there are recorded familiar observations of a practical kind to bear out this idea.

"Mr. D. Howitz, Forest Conservator of Denmark, in a parliamentary report on the resources and need of Ireland for forest cultivation, observes, 'that swamps and morasses are created in Ireland from the want of trees to drink up the superfluous moisture.' According to the observations of Gimlet in Algeria, extremely malarious districts have been rendered quite harmless, in four or five years, by the absorbent action of, and evaporation from, the *eucalyptus globulus*. The efficacy of forests in preventing inundations and the washing away of superficial strata of soil, causing erosions and even deep ravines, should be mentioned as, however, affecting chiefly agriculture and other industries of civilized life.

"From the various climatic and terrestrial influences of forest growth that have been considered, it is quite clear that they exert a potent influence upon the salubrity and healthfulness of a locality. The woodland air is highly invigorating, as evidenced by the happy results of camp-life in the wilderness, and the benefit derived by 'run down' subjects from leading an active nomadic life among our forests, at low or moderate elevation. Forest trees and plantations have an æsthetic influence. The impressions they make upon the organs of sense serve admirably to relieve mental tension, and agreeably entertain the mind. And thus practical experience agrees entirely with what would be expected from our knowledge of the character of forest air, viz.: that it is a more or less humid atmosphere, charged with principles possessing therapeutic properties, and containing that highly important substance, ozone. It ought to be here stated that the proper ratio of woodland, for ordinary sanitary purposes, is not less than twenty-five per cent. And since the effects of woods upon the air are limited in area, their proper distribution, so as to improve the whole body of the atmosphere to an equal degree, becomes a matter of the greatest moment.

"Having shown that forests have a considerable influence upon the degree of saturation of the air, it follows that in conditions of ill-health, requiring for their treatment a more or less humid air, forest growth in due proportion would serve the purpose admirably. They must, therefore, be capable of rendering energetic and valuable service in connection with health-stations. Now, as to the value of atmospheric moisture in the treat-

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*Michigan Health Board Report.

†Address before the Austrian Meteorological Society.

‡"Relation of Forests to Health Resorts," Phila. Med. Times, May, 1884, by the author.

‖Their action in this particular direction likewise has a marked effect upon the industrial arts and productive resources of a region.

ment of invalids, and particularly that large and unfortunate class—consumptives—there is great diversity of opinion. Doubtless, however, the majority of authorities have pronounced in favor of high altitudes over the lower, moister climes, in consumption. It should be recollected that the air of the forest cannot be spoken of as containing excessive humidity, and we have experimental data to bear out the correctness of this view. The observations of L. Fautial and A. Sartioux, pertaining to this point, will justify a citation. 'We now made the following observations in the heart of the forest of Helatte, which embraces 5,000 hectares of land. At the height of about six metres (twenty feet), above a group of oaks and hornbeams eight or nine metres, we placed a pluviometer, psychrometer, maximum and minimum thermometers, and an evaporator, so as to ascertain at that point the amount of rainfall, the degree of saturation of the air, and the temperature and evaporation. In open air, at a distance of only 300 metres from the forest, and at the same height above the ground as in the former case, we placed similar instruments, under the same conditions. With regard to the rainfall and degree of saturation, the observations for six months showed the total rainfall to be 192.50 mm. in the forest, and 177 mm. in the open air; difference in favor of the forest, 15.50 mm. The degree of humidity for the open air showed a mean of 61.7°, and in the forest 63°; difference in favor of the forest, 1.3°.'

"According to these experiments, the relative humidity over this extensive forest is somewhat greater than outside; still, the excess is not great enough upon which to found a reasonable objection to the presence of a fair percentage of forest growth at health resorts, excepting, perhaps, where an extremely dry clime is desirable. Moreover, by careful attention to the character of the vegetation, and percentage of woodland, and elevation, the degree of saturation of the atmosphere desired could be attained. Thus, at a resort of medium altitude, not more than fifty per cent. of forest area would produce an effect suited to cases of phthisis requiring a comparatively dry climate, since the small increase in humidity thereby occasioned would be more than counterbalanced by other beneficial influences already mentioned, such as the generation of ozone, the mechanical effects in protecting from malaria and objectionable wind-currents, besides minor influences, which act as valuable adjuvants. Attention may be very briefly called to some of the conditions that would receive benefit in an atmosphere of the above character, viz.: the earlier stages of chronic phthisis, as it is most generally encountered; catarrhal forms of the disease, with marked inflammatory action extending along the laryngeal and bronchial mucous membranes, seen most frequently in cold, raw climates, and having their origin usually in 'taking cold,' as well as cases of chronic bronchitis and laryngitis. In those predisposed by inheritance to lung disease, a residence in an atmosphere such as just described would prove a most powerful prophylactic measure. The practical value of plant exhalations, as preventive agents in consumption, as well as the healthful practice of cultivating plants, both indoors and out, have been elsewhere discussed.*

"There are in the United States numerous delightful resorts with a proportion of forest growth suitable for the above category of patients, both during the summer and winter seasons. Without stopping to describe any particular resorts, it may suffice to say that they are to be found through the northwestern States of Minnesota, Wisconsin, Colorado, and Nevada; or, starting from the northern coast line of New England, and passing in a southerly direction, we see them in New York, Pennsylvania (in good numbers), Virginia, and through the Carolinas. Should his strength admit of it, a patient having any of the conditions above described should be recommended to spend an active moving life, making frequent woodland excursions, since exercise is highly essential to realize the greatest benefit from the pure, vitalizing forest air.

"It is an important observation that from the structural peculiarities of the pine leaves, being dense and having a thick cuticular covering, the function of transpiration is carried on at about one-third of the rate as from forest trees having soft, thin leaves, so that the effect of the pine woods upon the degree of saturation of the air is actually very slight, and hence they can scarcely be said to be open to the same objections in this regard as other forests, even though the percentage of woodland should be very high. Besides, as has been seen, the pine exhalations are among the chief natural agents which produce ozone, and what is not unimportant, the pine tree flourishes well in dry, sandy soil. It follows from all this that in all the various conditions of phthisis in whose treatment the element of dryness is indicated, the air of the pine grove on an elevation offers advantages superior to those of forests composed of different other species. Fortunately, pine forests are not infrequently found to be so highly favorably situated, *e. g.*, Roan Mountain, North Carolina, has an elevation of 6,394 feet, and is covered with vegetation almost to its summit. Near the base of the mountain are found the walnut, oak, maple, gum, poplar, magnolia, and other species; whilst in the higher regions, evergreens, spruces, and pines abound. The practical value of pine groves in the treatment of consumptives is well established.†

(*To be continued.*)

—Before a recent meeting of the Academy of Medicine in Ireland, Dr. Kilgariff showed a great toe removed for epithelioma of the matrix of the nail from a man aged 62. It appeared two years ago. It had a villous appearance. Dr. Coppinger observed that the cells were of smaller size than were usually met with in epithelioma of the lower limbs, and there was less vascularity than usual. The history of the case pointed to a slow growth, which, after existing in the toe a long time, became ultimately malignant.

*House Plants and Lung Disease. Trans. Med. Soc. Pa., 1883, by author.

†Reports of cases in which pine woods have been highly serviceable must be omitted.

EDITORIAL DEPARTMENT.

PERISCOPE.

Pneumonia in High Altitudes, and its Treatment with Jaborandi.

Dr. J. W. Brown thus writes in the *Jour. Am. Med. Association*, March 7, 1885:

The greater prevalence of pneumonia in proportion to the population, and its much higher rate of mortality in mountain altitudes than at the average elevation of the earth's surface, set the writer, about six years ago, to seek about for a plan of therapeutics of greater efficiency than that generally practiced and approved. About that time jaborandi came into use, and there were notices in the medical journals of its efficacy in the treatment of dropsies by virtue of its peculiarly powerful influence on the sudoriparous glands. Its wonderful diaphoretic power pointed it out to the writer as being possibly a useful agent in the treatment of pneumonia in its early or formative stage, with the object in view that by its means an abortion of the disease might be effected, by limiting the effusion, and thus averting the perils of a fully developed pneumonia.

An immediate trial of the drug seemed to confirm the supposition, and an invariable use of it for the last five years in the formative stage of pneumonia has been productive of such extraordinarily beneficial results, apparently, that the writer is induced to present the experience and the method to the attention of the medical profession, asking their indulgence to the extent of first putting the method to a fair trial, and then approving or condemning as the results may warrant.

There is nothing of originality claimed in this practice by the writer, for he is fully conscious that the result of the action of the drug is identical with the result of the action of the steam-bath or sweat-bath practiced by Thompson and others with the same end in view—the abortion of pneumonia in its formative stage. This resort to an almost obsolete method has been the outcome of necessity, in an endeavor to obviate the almost certain death that follows upon a fully developed pneumonia in the altitude of the writer's practice, viz: An elevation ranging from eight to twelve thousand feet above the level of the sea, in the San Juan mountains. An exceedingly high rate of mortality, and a greater prevalence of the disorder in proportion to the population than at lower levels, accords, we believe, with the experience of every practitioner of medicine in the mountain altitudes, and a firm conviction of the efficiency of this method as a result of five years' experience with it has led the writer to lay this report before the medical profession, sincerely believing that its general adoption will materially diminish the mortality resulting from simple pneumonia, whether occurring in mountain altitudes or at the level of the sea.

We give a few illustrative cases:

Case No. 1. Mrs. S., aged 30, merchant's wife. Had had pneumonia, according to her own account, several times before at Del Norte, about seven thousand feet above sea-level. Had probably had pneumonia before, because she detailed the symptoms of pneumonia of her own accord, viz: A chill, with a sense of shortness of breath, followed by pain in the chest, cough, bloody expectoration, fever, prostration, and three or four weeks' sickness—she being at the point of death part of the time, and all the while under the care of a regular practitioner. About five years ago was called to see her; found her in a rigor which was very marked. Her face was cyanosed, extremities cold, she was shaking from head to foot, and her teeth were chattering as though she had an ague, and she complained of a shortness of breath. She said; "I am going to have pneumonia; I recognize it, and I am afraid of the result." She was then living 9,400 feet above the sea. Ordered her put to bed immediately, and prescribed:

℞. Ext. jaborandi fl., ℥iv.
Spts. ammon. aromat., ♏xl.
Syrupi simplicis, ℥iv.

M. S.—One teaspoonful every two or three hours to induce profuse perspiration.

She was put to bed, covered heavily with blankets, surrounded with hot irons wrapped in wet cloths, the irons being placed close to her body and the mixture administered as directed. In about twenty minutes she commenced to perspire profusely, and the sweating was maintained at its highest pitch for about six hours. Her bedding and clothing were then changed, her body wiped dry, and fifteen drops of the mixture were administered sufficiently often during the night to keep her skin moist. The next morning she got up at her usual time and resumed her household duties. During the day she expectorated a small quantity of pneumonic sputum, and complained of a slight feeling of soreness in the lower lobe of the right lung, but recovery was almost immediate. She did not go to bed again on account of this sickness, and she had no further medication on that account.

Case No. 2. J. B., a miner, aged 54. Lived in a miner's cabin about four miles out of town, and at an elevation of about 10,000 feet. On inquiry found that he had the symptoms of commencing pneumonia. Prescribed the mixture of the above prescription, and gave directions as in the preceding case. The next day the brother reported the patient better in some respects, but worse in others. He said the patient had retention of urine. Went up to see him and found him on his knees in bed, vainly trying to void his urine into a tin cup. Introduced a catheter, and found the bladder almost completely empty. Ordered cold water to be drank in plentiful quantity, the patient having abstained from drinking water for fear of aggravating the supposed retention of urine. He expectorated pneumonic sputa for two or three days, but within a week he resumed his work. In this case the sweating was so extreme that the skin had temporarily almost entirely

usurped the function of the kidneys in the elimination of water, and the small quantity of urine in the bladder—a few drops only—was very acrid and irritating. The kidneys resumed their function in a few hours.

Case No. 3. J. K., aged 24, a miner. Lived at Ophir, thirteen miles away, across a mountain range, and at an elevation of 10,000 feet. He was taken with a chill at four o'clock in the morning. I arrived at his bedside at half-past four o'clock in the afternoon, so that the disease had a start of twelve hours and a half. From description given by messenger, a diagnosis of pneumonia was made out. The patient was in bed. Face was dull and leaden in color; he had fever, cough, pain in the right lung, and a sense of shortness of breath, and the floor near the head of the bed was covered with a bloody expectoration. The floor was spattered with pneumonic sputa all over an area three or four feet in extent in all directions. Physical examination showed a dullness in the lower part of right lung, with subcrepitant rales. This was a case of plastic pneumonia beyond the shadow of a doubt, and it had a start of twelve and a half hours. He was treated in the same manner as the two preceding cases. In a quarter of an hour beads of sweat stood out on his forehead, and the patient was informed of the certainty of a speedy recovery.

As the sweating progressed, he experienced proportionate relief. The sweating was continued at the highest pitch for nearly eight hours. Ordered a diminished dose of the mixture, continued for two or three days, gave general directions for his further management, and dismissed him with orders to report if necessary. In a week he resumed his work, having made a complete recovery.

Case No. 4. J. C., saloon-keeper, aged twenty-four. Had had pneumonia two years previously at Leadville, and was confined to his bed three weeks, being very dangerously ill, according to his own statement, most of the time. He spoke very flatteringly of the physician in charge, on account of the good care rendered, and expressed himself as very lucky that he finally recovered, the prevalence of the disease and the rate of mortality being exceedingly great at that time at Leadville. Was called to see him on a Sunday afternoon, at half-past three. He had been taken with a chill at seven o'clock in the morning of the same day, so that the disease had a start of eight hours and a half. His pulse was full and bounding, expectoration profuse and typically pneumonic; there were fever, a dull, leaden face, pain in the right lung, cough, and a sense of a want of breath. Examination gave the physical signs of pneumonia. He said it was the same thing he had at Leadville. He was treated in the same way as the preceding cases, with the same exceedingly profuse diaphoresis as a result, and the same relief. He remained in bed till the following Thursday morning, when he got up at the usual time and resumed his regular occupation. He was dismissed on Thursday morning without further treatment, and two days after was apparently well. Other cases may be given, and some who have walked the street within two days expectorating pneumonic sputa, after being subjected to the jaborandi sweat-bath ordeal, without relapse or further inconvenience, convalescence continuing to perfect recovery in a few days thereafter.

These cases are but examples of the usual behavior of pneumonia treated by the jaborandi method, in the formative stage, so far as the experience of the writer goes, during the last five years; so that he feels compelled to advocate a more general trial of the method, having had two cases only of death from this disease in five years, one being a case of neglected pneumonia, which had developed to the involvement of two-thirds of the right lung in pneumonic solidification, death taking place suddenly on the day after the first visit and apparently from heart-clot; the second case being that of an old man whose constitution was already shattered with hard drinking, and in whom the disease, if it were pneumonia, developed insidiously and resembled as much a hemorrhage as pneumonia, the symptoms were so anomalous.

In the practice of the writer, he feels that pneumonia has lost its terrors even in these high mountain altitudes, whereas before this practice the mortality was great, and the doctor overwhelmed with a sense of helplessness. A case of simple pneumonia that would recover without any care, other than that of simple hygienic management, at sea-level, seemed, in these altitudes, to be almost necessarily fatal, and recovery from double pneumonia an impossibility. The only safe way in mountain altitudes is to abort the disease early, before the advent of symptoms indicating asthenia, and this can be done at any time previous to the appearance of asthenic symptoms by the simple method detailed herein; that is to say, limitation of the extent of the solidification may at any time be effected before symptoms of asthenia make their appearance, so that as small a portion of a lung as possible may be rendered useless by solidification.

The excessive mortality in pneumonia at mountain altitudes, over that at the average level of the earth's surface, seems to be due to the rarefied condition of the atmosphere mainly, its chemical composition being the same as everywhere else in open country, as shown by chemical analysis of three specimens, one of which only showed a trace of ozone.

Exhaustion seems to take more rapidly on this account, due, probably, to a deprivation of oxygen. At 10,000 feet, a volume of air of sea-level density expands into about one and one-half volumes, so that a man in health needs to breathe a quantity of air greater in volume by one-half in order that the tissues of the body at large may be supplied with the requisite quantity of oxygen. Hence, probably, the greater gravity in mountain altitudes in cases in which a considerable portion of a lung becomes solidified. In an inflammation of lung-tissue there seems, also, to be a greater rapidity in the spread of the inflammatory process to adjacent lung-tissue, probably owing to increased functionation, and hence the necessity of a more active treatment to stay the inflammatory process and effect resolution. That a pneumonia may be aborted the writer has no doubt, judging from these results, however crude the experiments may be; and that the duration

of the disease is in ratio with the extent of the solidification, and inversely; also that the extent of the solidification bears a relationship to the time elapsing between the initiatory chill and the establishment of a thorough derivation by profuse diaphoresis.

It would seem, also that the pathological condition is a simple inflammation independent of zymotic influence, as the remedial agent in its action is purely physiological; a derivative influence only being exerted from the lung tissue to the cells of the sudoriparous glands—otherwise, on the cessation of the physiological action of the drug, the zymotic influence still persisting, the pathological process ought again to be awakened.

The method described is inapplicable after the appearance of asthenic symptoms, because the mischief sought to be averted is already in existence and is the cause of the asthenia, viz., a fully developed pneumonic solidification. If it is now too late, the only resort remaining is the method of support and hope, both together, in these mountain heights at least, being inadequate to the making of a lung largely hepatized to breathe a sufficiency of oxygen for the needs of the economy, when in its full capacity this is about all that it can do.

The writer has taken advantage of the sudorific power of jaborandi in the treatment of other inflammatory affections, and notably in the treatment of quinsy and bronchitis, and with results similar to those obtained in the treatment of pneumonia. But in all instances it is a remedy only in the formative stage.

Vertebro-Meningeal Rheumatism.

Dr. J. E. Blomfield thus writes in the *Lancet*, January 24, 1885:

The case of which the following is a short account occurred in the practice of Professor Jaccoud, at the Hôpital de la Pitié, Paris. Taking into consideration its rarity, and the facility with which the diagnosis of rheumatism could be established, it is worthy of wider notoriety than is afforded by being the subject of a clinical lecture, and is certainly interesting as a contribution to our knowledge, which is far from complete, of the various phenomena of rheumatism. The patient was a man of robust appearance, forty years of age, who had enjoyed good general health until the 24th of January of last year, when he presented himself at the hospital complaining of pain in the region of the neck, of the shoulders, and in both upper extremities. This painful state was not produced by degrees, but had arisen suddenly without assignable cause. The pain was violent, and, according to the description of the patient, it seemed as if his arms were being twisted off. The slightest movement increased the pain. The seat of the pain was not localized, but it seemed to shoot down the arm. The neck was held quite rigid by the contractions of the muscles, so as to prevent any movement of the cervical vertebræ, and this part of the spinal column was bent backwards so as to constitute a slight opisthotonos.

On examining the arm there was nothing seen to account for the pain. There was no redness or swelling, and the joints themselves were quite free from any suspicion of disease; but it was possible to discover that certain areas of the skin were devoid of sensibility; and, further, that these points were spontaneously painful—that is to say, the patient presented the phenomena of *anesthésie douloureuse*. When seen by Professor Jaccoud it was discovered that the region of the spine marked by the fifth, sixth, and seventh cervical vertebræ was very tender. Pressure over this region increased not only the local pain but also the pain down the arms: and taking into consideration the character of the pain and the local tenderness, the Professor came to the conclusion that the lesion was central, and, further, that it was rheumatic, because there was no history of a blow or other injury. There was no evidence of syphilis or tubercle; in fact, he considered it as a case of articular rheumatism of the upper part of the spinal column, involving the meninges; and, in accordance with this opinion, ordered a treatment of sodium salicylate. But to complete this diagnosis there was one point wanting, and that was the temperature. On the day of examination the patient's temperature was normal, but in the evening it rose to 39.4° C., thus supplying the fact which was missing. The correctness of the diagnosis was well illustrated by the treatment, for the effect of the sodium salicylate was marked and immediate. The pain diminished, and with it the rigidity; and by the end of February the patient left the hospital practically cured, only a slight rigidity of the neck remaining, obviously due not to the muscular contraction, but to the articular lesion. But in the first fortnight of March he presented himself again at the hospital in exactly the same condition as before, with the addition that the lower limbs were also affected in a similar manner. Soon, however, another manifestation showed itself, which is of great importance as adding another item of support to the diagnosis, and that was the tumefaction and redness in the left knee and ankle.

The patient was now a hopeless cripple in bed, not daring to move a limb because of the pain, which, as before, was much exaggerated by any movement, though when encouraged to make the requisite effort it was found that perfect power over the muscles was retained. This, however, did not last long, for towards the end of March it was found that there was a loss of ability to move the limbs, however much the patient tried; in fact, there was a complete akinesia and anæsthesia of all four extremities. It is an interesting fact that this loss of motion appeared first in the arms and afterwards in the lower limbs. The treatment adopted at this time was iodide of potassium: but no marked benefit was noticed, and the patient continued in much the same state during April, with the exception that defecation and micturition became affected, and the patient passed his motions under him unconsciously.

In the month of May mercurial inunctions, night and morning, were added to the previous medication, not with the idea of counteracting any syphilitic taint, but because of the well-known property of mercurials of removing plastic deposits, to which his troubles were attributed, and some slight improvement seemed to be gained. In the month of June the patient was again in

much the same state, except that an ulcer over the sacrum was added to his other troubles. In September, during the absence of Prof. Jaccoud, the treatment was changed and strychnia was given, and soon after this a sign of improvement appeared, due probably not to the change of drug, but to the salutary influence of time, aided possibly by the previous medication. Whatever was the cause, the power of movement began to return, first, in the upper limbs and then in the lower, and at the same time the anæsthesia disappeared, and gave place to a degree of hyperæsthesia, and with these improvements the ulcer on the sacrum began to heal. The muscles were found to have preserved their electric reactions in a normal state, despite the time they had remained useless.

Vesical Calculi in the Urinary Bladder of an Hypospadias—a Surgical Curiosity.

In the *Jour. Am. Med. Ass.*, January 24, 1885, Dr. M. Schuppert, of New Orleans, reports as follows:

The subject of this interesting narrative was a musician, about forty five years old, with a congenital deformity which stamped him an hypospadias; with the urethra of the pendulous portion of the penis left open, the latter organ presented a *membrum virile cum impotentia generandi et coëundi.* That penis reminded me of an operation said still to be performed by the inhabitants of some of the islands of the South Sea, as also among the Australians and Esquimaux—people who, in regard to culture, stand probably yet at the same prehistoric footing as the so-called *neolithic period.* I say it reminded me of what these Australians call the *mica operation*, which consists in cleaving the lower wall of the urethra for the purpose of producing sterility, and which operation they perform with a stone knife, a piece of flint they sharpen, and with which they are said to perform also laparotomy, and even trepanning.

The morphological interest in our musician's case was heightened by the fact that with the urethra left open to the root of the penis from the first period of fœtal life, that membrane had grown to an extraordinarily large size and length, measuring in its relaxed condition 14.5 centimetres (near 6″) in length. The opening at the root of the penis was not larger than 8 mm. in diameter, and that opening, which corresponded with the locality of the caput gallinaginis, proved the man's misfortune. Through that opening our musician had been in the habit of playing with the cork of a wine bottle, "*pour saulager la nature*," est modus in rebus; and as none are so daring as those who have long been accustomed to place their dependence on their own exertion—it being the distinct mark of genius, that it lights its own fire—our prestidigitator one day in thus pursuing the even tenor of the way of his Anacreontic desires, in playing a fortissime experienced on himself the truth that "what is considered happiness to-day may get misery to-morrow," and, like the pitcher that goes constantly to the well, is likely to break at last; so the cork, escaping once his fingers, vanished between wind and water to that bourne whence no traveler ever returns, except it be by the hand of the sympathizing surgeon.

It is properly said that "a rolling stone gathers no moss," but a rolling cork in a vesica urinaria may gather phosphates and become an annoying peregrinarian calculus. Hugging the delusive phantom of hope to play himself the successful accoucheur, our musician had at various times tried, by introducing wires, tape, fiddle strings, etc., to get hold once more of the fugitive stopper, but frustraneously. He finally discovered how truly Rabelais had said, that "the attempt to run a wind-mill by the wind squeezed out of a dead ass, be a futile enterprise of an impracticable genius," and he came to the conclusion that a good musician might turn out a very poor surgeon. He felt some embarrassment to acknowledge his foolishness. But as the man who tells one lie will have to tell a dozen more to sustain the first, he was soon caught in his own net, and forced to make a full confession.

The operation was decided upon. When the patient was under the full influence of chloroform, I succeeded in an easy manner in extracting, with a calculus spoon, entered through the natural opening, the incrustated cork. But, from its size, no doubt could exist that another and even a larger piece was still behind. Entering the instrument again, that piece was soon grasped and brought to the entrance of the opening. But it was impossible to extract it in that manner; a forceps and the percuteur were both tried, but with no better result. The cork could not be compressed nor crushed; therefore the opening was enlarged with the long knife of Vacca Berlinghieri, the incision being made towards the neck of the bladder, when, with a forceps, the other piece came away quite easily. Both pieces were thickly incrustated. No doubt, by his efforts to get the cork out, the musician, in using the wire, had cut the soft cork in two. The operation was not followed by any untoward symptom after the bladder had been well irrigated and washed out. The patient was not even confined to bed for a single day. Who was happier than than our fiddler, when once more he held his dear and unlucky cork in his hands? A proposition of doing away with the tempting opening in restoring a normal channel, he nevertheless refused. I never saw him again.

Regularly Intermittent Albuminuria.

Quoting from the *Arch. f. Klin. Med.*, the *Medical Chronicle* tells us that Falkenheim records a case of intermittent albuminuria occurring in a man, æt. fifty, of temperate habits, and with no syphilitic history. His illness began at the age of forty-five, with indefinite stomach troubles, followed after two years by a tumor under the left ribs, which continued to grow. A year later he found it impossible to work on account of shortness of breath and distension of the abdomen. For a year before admission he had a feeling of fullness and oppression in the right hypochondrium. State on admission: slight icterus of the sclerotic; elevation of the diaphragm, displacing the heart; the abdbmen considerably elevated, the free border of the ribs strongly bent out; the spleen greatly enlarged; the liver also enlarged; the blood normal; the urine normal. The patient complained of great weakness, of a sensation of

fullness and weight in the abdomen, and of susceptibility to digestive troubles. The diagnosis was cirrhosis.

On admission the urine was normal. That passed during the following night contained albumen. The urine passed next day was found at the physician's visit not to contain albumen. This awakened attention, and, finding that the order of events repeated itself, Falkenheim made a close investigation into the cause of the occurrence, the result of which may be briefly given thus.

It was discovered in the first instance that the presence of albumen was dependent in reality, not on whether the urine was passed during the night or during the day, but on the position of the patient, whether he was lying down or not.

The various recumbent positions were then tried, and after careful observation the following conclusions were arrived at. With the patient lying on the right side or on the back there were only traces of albumen; if he lay half to the left or quite on the left side, much albumen; if on the forepart of the left side, very little; if on the belly or on the forepart of the right side, none.

These results were constant, and suggested a mechanical cause. This cause might be pressure on the left renal vein, which crosses the aorta between the first and second ribs to join the vena cava. Such pressure was not unlikely to occur from the sinking of the forepart of the spleen towards the left, and from the direct pressure on the spleen from lying on the left side.

Now, were this so, and did the pressure occur on the renal vein after its junction with the left spermatic vein, we should be not unlikely to obtain some swelling of the pampiniform plexus on the left side, which was accordingly distinctly noticeable. No swelling of the scrotal region was observed when the patient lay on the right side. The author therefore considers that the intermittent albuminuria was due to pressure on the renal vein. He also determined on several occasions the time which elapsed between assuming the position implying compression of the vein and the appearance of albumen. One of these observations is given. Albumen was present after ten minutes and abundant after twelve. The urine examined was obtained by means of a catheter.

Gastroenterostomy.

The *Med. News*, January 24, 1885, says:

In the *Correspondenzenblatt für Schweizer Aerzte*, for November 1, 1884, may be found the report of what must be regarded as the most remarkable case of gastric surgery that has as yet been recorded. On the 15th of July, 1883, Prof. Socin resected the carcinomatous pylorus of a woman, forty-three years of age, who subsequently enjoyed excellent health for upwards of eight months. At the expiration of this time, she began to be troubled with symptoms of dyspepsia; and on the 23d of May, 1884, a recurrent tumor, adherent to the abdominal wall, the pancreas, and the liver, was discovered. On the 5th of June, gastroenterostomy was practiced; the patient made a rapid recovery, and at the end of four months her digestion was excellent, she had slightly gained in weight, and the tumor had only increased in volume.

The establishment of an opening between the jejunum and the stomach, to insure the passage of food into the intestinal canal, and thereby prevent death from starvation in cases in which pylorectomy is contraindicated, has been resorted to at least twelve times for carcinoma of pylorus, the operators having been Wölfler and Lauenstein, each in two cases, and Billroth, Rydygier, Kocher, Monastyrski, Lücke, Courvoisier, Ranshoff, and Socin, each in one case. Of the twelve, nine, or seventy-five per cent., died; and three, or twenty-five per cent., recovered. Of the recoveries, two were living at the end of four months, and one at the expiration of six months. Rydygier, in March, 1884, had a success in a case of ulcer of the duodenum.

These results indicate that gastroenterostomy is as deadly an operation for carcinoma as is pylorectomy. It has, however, succeeded in prolonging life in one case out of every four, so that the patient may be given the chance if it be desired.

Among the more recent attempts to establish a communication between the stomach and the intestine, is the novel case of Dr. Conner, of Cincinnati, which is recorded in the *Medical News* for November 22, 1884. The entire stomach was extirpated "with the hope of attaching the cardiac end to some portion of the intestinal tract, so that the fluids poured out in the upper part of the small intestine might flow down to meet the food, and cause digestion in the part of the intestine where they come together." As the patient died upon the table, the operation was not completed. However feasible it may be, so far as surgical procedures are concerned, we fail to see that, in the event of recovery, it could be of any service, from the fact of the supply of the gastric juice being entirely cut off. Hence, we trust that the operation will not find imitators.

Absorbent Cotton as an Electrode Covering—A Suggestion in Electro-Therapeutics.

Dr. G. Betton Massey thus writes in the *Med. News*, February 7, 1885:

To practical workers in medical electricity the covering of the metal electrodes used to convey currents to subdermal tissues is a matter of more than apparent importance. The object of this covering is the maintenance of water, or a saline solution, in a position to conduct the current painlessly from the metal surface through the epidermis (which is a very poor conductor in a dry condition) to the moister tissues below. This covering should be thin, yet retentive of a sufficient supply of liquid. It should be soft, cheap, and readily cleansed or renewed. Sponge has been the favorite of late, owing to the superior softness and water-absorbing power possessed by it in contrast with wash-leather or muslin. It has the disadvantage, however, of excessive humidity—often drenching contiguous clothing; added thickness, leading to increased resistance and alterations of resistance while *in situ*, when the pressure is slightly changed; irregularity of surface, causing pain at first instant of contact, and a subsequent unequal distribution of current through the area covered by the electrode. In

addition, these sponges, unless frequently removed, cleansed, and carefully re-sewn, soon become unfit for use from an accumulation of verdigris, saline deposits, epidermic scales, and sebaceous matter. Their instrumentality in the transference of disease from patient to patient can readily be conceived; and, unfortunately, instances of this unpardonable accident are on record.

With these disadvantages in mind, the substitution of absorbent cotton as a covering recently occurred to me. A trial demonstrated its value, and I immediately removed the sponges from the greater number of my electrodes. It is applied to the brass disk in a few seconds, after the manner of gynæcologists when covering their uterine applicators; a pinch of sufficient size, and with the proper smoothness of fibre, is laid on the face of the disk and the edges pressed over and twisted around the shank by a twirling motion of the electrode. In a moment it is ready for use; and the covering may be rejected immediately after the application. But little practice is required to learn how much cotton to use, and to obtain a smooth covering on any but the very largest disks. The many advantages of this material for this purpose are too apparent to require mention, not the least being its preëminent smoothness, softness, and neatness.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——The bound volume of *The Analectic* for 1884 presents a handsome appearance, and is replete with carefully-culled information on all branches of medical science. *The Analectic* is edited by Walter S. Wells, M. D., and published monthly by G. P. Putnam's Sons, New York city.

——In a reprint entitled "Massage: the Latest Handmaid to Medicine," Dr. Benjamin Lee, of this city, gives a brief and well-prepared sketch of the application of this procedure in therapeutics. We note that he quotes erroneously the famous words of Webster, "Action, divine, God-like action," for which the doctor substitutes "motion."

——The Messrs. Lloyd, of Cincinnati, send a reprint of an article by Dr. Roberts Bartholow on Hydrastis, giving some physiological and clinical effects of this drug. He thinks it a useful remedy.

——The Pennsylvania Hospital has issued a handsomely printed pamphlet containing addresses by Dr. Thomas G. Morton and John B. Garrett on the unveiling of West's picture, Christ Healing the Sick. This celebrated work of art was presented by the great painter himself to the hospital, and has recently been restored.

——The ninth "Toner Lecture" was delivered by Dr. C. K. Mills, his subject being "Mental Overwork and Premature Disease among Public and Professional Men." It now has appeared in in a neat form as a reprint, and is well deserving of careful perusal.

——The "Address before the College of Physicians of Philadelphia," by Dr. J. M. Da Costa, delivered in February, 1885, and lately published is separate form, is one of those polished and appropriate compositions which the distinguished Professor knows so well how to prepare.

——An essay by Dr. George Hamilton, of this city, on the question "Was the act of the British Parliament in restricting vivisection inconsiderate and unnecessary?" will interest all who would keep abreast of what seems to us this rather unimportant controversy.

——Dr. P. D. Keyser, of this city, in a reprint before us "calls a halt" in the indiscriminate use of cocaine in ophthalmic surgery. He warns the profession that it is by no means innocuous. He closes with the advisory words:

"As a local anæsthetic in the removal of foreign bodies from the cornea, strabismus, and such external operations, I know of nothing equal to it. But I would be very careful in its free use where the cornea is opened and the iris incised.

"While writing this article I learned of two other cases of panophthalmitis occurring after its use, but have not had time to get the particulars."

——An elaborate paper by Dr. N. Senn, of Milwaukee, "On Cicatrization in Blood-vessels after Ligature," has been reprinted from the *Trans. of the Amer. Surgical Association*. It is a thorough examination of the process.

——The proceedings of the Kentucky State Medical Society form a pamphlet of thirty-five pages, with the usual minutes.

——Some of the preventives to the accomplishment of marriage are set forth by Dr. C. H. von Klein, of Dayton, Ohio, in their application to the law of divorce. The subject is one of great interest, and his views are deserving of close attention.

——The "Transactions of the Sei I Kwai" come to us printed, for the most part, in excellent Japanese; but as we have not thoroughly perused this portion of the book, we shall reserve our opinion about it. The Sei I Kwai is the society for the advancement of medical science in Japan, and it publishes its transactions in monthly parts at Tokio for the reasonable price of 1.50 *yen* a year.

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THE PHILADELPHIA COUNTY MEDICAL SOCIETY AND QUACKS.

It has been for a long time the reproach of the profession in this country, and especially of our own city, that diplomas could be very easily obtained. Not only this, but that men could practice, or rather *did* and *do* practice medicine, or to be more exact, undertake to cure disease, without proper legal qualification therefor.

Of course, common sense will tell us that many of our most thoroughly *legalized* physicians are comparatively incompetent to treat and *combat* with disease, but this is not an argument in favor of allowing thoroughly unqualified men to prey upon the public. The Philadelphia County Medical Society has realized this fact, and its newly-elected President, Dr. R. J. Levis, has appointed on the "Committee on Hygiene and the Relations of the Profession to the Public" nine men who are determined to ferret out all men who may be practicing medicine illegally in this city. This committee inaugurated its work by arranging for the selection of a legal adviser to the committee, who was found in the person of Mr. Lincoln Eyre (a most capable member of the Philadelphia bar), who will advise the committee as to the proper cases to be brought to the attention of the District Attorney, who, as the legal officer of the county, will be called upon to conduct the prosecution of any one who may be found to be practicing medicine illegally.

It has also been provided that this committee shall arrange for a series of popular lectures on Hygiene. The first lecture has been given by Dr. E. O. Shakespeare, his subject being "Cholera;" it was beautifully illustrated, and was listened to by an audience that completely filled not only the *seats* but *all* the *standing* room of the hall. The second lecture will be delivered by Colonel Ludlow, the Chief Engineer of the Water Department, on Monday evening, March 30th. This course of lectures promises to do much towards fostering the already growing interest in hygiene.

To ferret out quacks, detectives will be employed whenever necessary, and the strong arm of the law will be invoked—and invoked most

liberally—to relieve our city of the stigma that hangs over it.

It will be a thankless task. The committees of the Philadelphia County Medical Society have hitherto, as a rule, been a "Rip Van Winkle set," as are so many in our good old town—but it is a praiseworthy one, and it deserves encouragement and support from every right-minded person. We have laws—unprogressive as our State is—we have laws regulating the practice of medicine, and providing certain obligations for those who desire to have the authority to "*kill or cure;*" and it is the purpose of this committee to bring to the attention of the proper legal officer the names of all men or women who may not have complied with these requirements, and not only to ferret them out, but also to urge upon, assist, and, by all legitimate means, force the conviction of such miscreants. We have too many *good* doctors; we have an overcrowded profession, which, however, is always ready to welcome into its ranks any one who may desire to practice medicine and will *properly* qualify himself, because they *cannot* and [*do not* desire to turn the cold shoulder toward such; but the profession *does* say, and says strongly, in tones that are unmistakably meant to be heard and heeded, and in time will be obeyed, that as custodians, to a certain extent, of the public wealth, through the public health, quacks and charlatans, those who have no right to practice medicine, *must* be suppressed.

There is a young *abortionist* in jail in this city now; he is only eighteen years of age, was a bartender, and yet (think of the terrible nature of this *boy's* avocation) he went from town to town, and even from State to State, practicing his criminal and disgusting trade, until, fortunately, the law called a halt upon his nefarious practices.

Such cases as those mentioned in this editorial are by no means rare; every large city and many small towns will furnish their quota of medical parasites living on the ignorance, credulity, or gullibility of our people. Let us weed them out; let us give every qualified man a chance; let us do all that is right and fair towards our professional brethren; but *do not* let us degrade our noble and ancient profession by allowing BAR-TENDERS and CLAIRVOYANTS to prey upon the unsuspecting people of our neighborhood.

AN OPINION ABOUT A STATE BOARD OF HEALTH.

That a number of States of the Union, among others Pennsylvania, have not yet created a State Board of Health, is nothing short of discreditable to the civilization of the age and the pretended education of the people. Did these latter have any just conception of the magnitude of the interests involved, they would lose not a day in insisting that the Legislature of the State should at once pass the proper bills creating such a Board.

Proof of this is, that where they have been formed they are rapidly growing in public estimation. The value of their labor is appreciated, and will continue to be.

This is illustrated in the recently-published biennial message of Governor John M. Hamilton, of Illinois. He says:

"The State Board of Health, which was in its inception very difficult to establish by legislative enactment, has steadily grown in usefulness and popular favor, until now it is one of the most important bureaus of the State government. By reason of the able management of its members, and especially of its secretary, the medical profession of the State has been much elevated and improved. Incompetent beginners have been prevented from practicing. The grade of medical education required for practice has been raised to a respectable and safe standard, while mountebanks and quacks have been driven from the practice of their wiles and deceptions on the people of this State. The health of the citizens and their protection from inroads of contagious and epidemic diseases have been faithfully and carefully watched. Rules for sanitary care and regulation and instruction as to prevention and cure of prevalent and especially dangerous diseases, have also been so successfully published and promulgated that it is believed thousands of lives have been saved."

In the face of intelligent experience of that kind, why is it that such lethargy on the subject continues? Largely, we believe, because physicians themselves do not urge the advantages of such State organizations on the community. Too many speak indifferently on the subject, or even disparagingly. With such testimony from an impartial source, this indifference ought to cease.

Notes and Comments.

Large Pelvic Abscess of Obscure Origin, Opened Per Rectum.

Dr. Cottenham Farmer thus writes in the *Brit. Med. Jour.*, January 17, 1885:

In April, 1884, Mr. R. C., aged twenty, articled clerk, born in New Zealand, thus described his first symptoms:

"In the evening of April 3, a pain began in my stomach, gradually increasing in severity until I vomited, and the bowels acted; not having done so for two days. I was drawn together with pain, and felt cold. The pain lasted several hours, and left me sore and prostrate. Although the bowels had acted fully, there still remained a fullness about the left bowel, accompanied with pain. On the 4th instant I used an enema, but without any effect; soon after a severe pain commenced in the bowels, causing me to go to stool, but without results further than the passing of some watery-looking, slimy stuff after severe straining, and the pain continued, without ceasing, until the evening of the 6th instant, when I called in the medical man."

On my seeing him, he had abdominal pain, but no marked tenderness. His temperature was 102°; pulse 88; he had tenesmus. As he had been exposed whilst fishing, I considered it a slight febricula, and ordered salines and Dover's powder three or four times a day, which, as he said, kept him quite easy. This continued until April 13, with usually a subnormal evening temperature. He had now some pain when passing urine. In the evening I noticed suprapubic dullness, and, thinking the bladder was distended, passing a catheter, but drew off only a small amount of urine.

On the 14th, finding the same dullness after passing a catheter, I examined the rectum, and there found a large rounded fluctuating tumor, occupying the position of a distended bladder, and flattening the rectum. This I aspirated, and drew off about a pint of the most foul-smelling pus. It had reaccumulated on the 16th, when I made a small incision. A free escape took place, and small quantities continued to pass daily after each action of the bowels.

On the evening of the 19th, however, pain commenced again, with shivering and rise of temperature. I gave him quinine in large doses, and diagnosed a secondary abscess higher up. On the 21st, Dr. Page, of Newcastle, saw him with me, and, after a most careful examination, suggested the probability of some disease of the pelvic bones (os pubis or ischium). We agreed to thoroughly drain and wash out the abscess. This was done on the 22d, when I introduced a winged catheter, and injected a lotion of carbolic acid, and this was continued morning and evening, until June 17, when the cavity had almost closed, and the discharge had ceased, and the catheter was withdrawn. For some time, he had abdominal pains and patches of dullness, and a small amount of ascites, with enlargement of the right inguinal glands. In August he went to the seaside for a month, and is at present well, has regained weight, and is without dullness or pain of any kind, except under circumstances of extreme fatigue.

I think such cases are rare, and perhaps worthy of record, and I should be glad to hear from other more experienced surgeons of similar cases, and the probable result if left entirely to nature's treatment; also with regard to pelvic or vertebral abscesses forming in such a locality.

Purulent Ophthalmia in Infants.

Mr. Cowell's paper on this subject before the Harveian Society of London (Feb. 5, 1885), had for its special aim to show that the large amount of blindness due to this disease could be avoided if (1) the people could be instructed as to its dangers, and if (2) medical men universally recognised the futility of only temporizing measures. This object could best be attained by unremittingly, and by every means, endeavoring to diffuse a knowledge of the disease and of its dangers, through the dispensaries, the clubs, the lying-in institutions, and the visitors of the sick poor. Prophylaxis was the next important duty. In respect of treatment, the first essential was that no time should be lost. The indications were (1) to remove the conjunctival discharge as rapidly as it formed, (2) to relieve tension, (3) to watch and treat the complications. In addition to the usual rules of treatment, Mr. Cowell recommended that the affected eyes should be cleansed every quarter of an hour with weak antiseptic lotion, and the conjunctivæ painted with solution of nitrate of silver (four to six grains to the ounce) daily in severe cases, twice or thrice a week in mild ones, the free solution being washed away with antiseptic lotion. When there was much discharge, alum or boracic acid might be added to the lotion. The *cul-de-sac* under the upper eyelid required careful washing out. The ablutions might be less frequent during sleep, and gradually diminished as the discharge lessened. Where severe chemosis occurred, early scarification was necessary.

Mr. Juler inquired whether severe cases could be diagnosed early from milder ones. He quoted some investigations of Dr. Widmark (*Revue Générale d' Ophthalmologie*, September. 1884), in which twenty-two cases of purulent conjunctivitis had been examined (four adults and eighteen infants). Bacteria, described as gonococci, were found in the majority in the fluid in the pus-cells, and in the epithelial cells. In the adults, he discovered gonococci in the urethral secretion; and in the infantile cases, in the urethral discharge of the mother. The gonococcus was absent in six of the infantile cases, which ran a mild course. The antiseptic lotion used for the ablutions should be weak (0.5 per cent. carbolic or boracic acid). The conjunctivæ, if severely swollen, should be freely scarified; and, if eversion of the upper lid were impossible, the outer canthus should be divided.

Mr. H. Power said that, when due to gonorrhœa, cases were likely to do badly unless they received skilled treatment early. On a wide average, cases, if seen in the first week, would recover; if in the second week, they would run a dangerous course; if in the third week, they were hopeless.

Icterus Produced in a Few Hours by Nervous Irritation.

What might be called the psychological causation of jaundice has been already discussed in our pages; hence, the following case, which we note in the *Jour. Am. Med. Ass.*, March 7, 1885, is of interest. We learn that Dr. H. Rendu (*France Médicale Jour. de Med. et de Chir.*) relates the case of a woman twenty-five years of age, who had been treated in his hospital service for puerperal peritonitis. During her convalescence, while her general condition appeared to be good, she was affected with retention of urine. The student who attempted to use the catheter made several ineffectual efforts, but was obliged to desist on account of a sort of nervous crisis which his manipulations produced. Three-quarters of an hour later, when he returned to the ward, he was astonished at seeing his patient manifestly jaundiced (she had a very clear skin previously). As he was about to attempt catheterism again, the patient, still very nervous, urinated spontaneously—the urine being of a deep brown color, and evidently containing biliary pigment. This occurred at 11:30 a. m. At 1 p. m., the yellow color was marked not only in the conjunctivæ, but also all over the skin, being most pronounced on the abdomen and trunk, and a little less so on the extremities.

On the following day the jaundiced appearance was as decided as during the most intense and prolonged cases of hepatic colic. The urine looked like brown beer, and gave a green color on the addition of nitric acid. The stools were of the greyish, clayey character, as when deprived of bile. The pulse was normal—no prurigo, no nervous trouble, no hemorrhagic tendency, tongue clear, marked thirst, no want of appetite; ate but little; no pain over nor enlargement of liver; no abnormal sensibility at the epigastrium.

For two days the icterus retained its maximum of intensity. The third day it commenced to decline, and the stools took on a little color, the urine remaining dark. The fourth day gave no trace of the jaundice externally, only the urine was a little dark in color and responded to the nitric acid test. On the fifth day there was no evidence whatever of the recurrence of jaundice.

Recovery from Strangulated Hernia after Refusal of Operation.

Dr. John B. Roberts thus writes in the *Polyclinic*, January 15, 1885:

"Two or three years ago Dr. J. C. DaCosta requested me to see a man who had had left-side hernia for about four years, which was now, and had been for many months, irreducible. For two days and a half the patient had had no stool, and had been complaining of pain referable to the hernial and to the umbilical region. Dr. DaCosta had attempted taxis, but failing, had given castor oil, which was vomited without inducing an action from the rectum. An enema was ordered, and a subcutaneous injection of morphia given; after which he called me to meet him in consultation. When we saw the patient, he complained of no pain. I was not able to get any accurate history of the case from the man himself or his family, but he had a hernia the size of a black walnut, elongated horizontally, lying apparently below Poupart's ligament. I was unable to determine to my satisfaction whether it was a direct inguinal or a femoral hernia. Tonics under ether failed to reduce the hernia, and as herniotomy, though strongly urged by Dr. DaCosta and myself, was refused, opium and belladonna were administered, and ice applied to the tumor.

"I did not see the patient again, but was informed, two days later, that abdominal tenderness was somewhat more marked, though there was no pain except on pressure. No action of the bowels had occurred. When I saw the attending physician several weeks after, he said the patient had recovered without showing any further un-

favorable symptoms. The hernial tumor, of course, remained.

"In this instance the unfavorable prognosis made by me was unsustained by the history of the case. Whether strangulation of a small portion of an old hernia was relieved by the manipulative efforts made by Dr. DaCosta before my visit, or by our joint action, or whether actual strangulation never existed, I was unable to determine. The history, indefinite as it was, and the symptoms, justified resort to operation, because of the well-known danger of operative delay in strangulated hernia. In all similar cases I should still advocate exploratory incision."

Cancer of the Thyroid Body.

The *Medical Mews*, January 31, 1885, says that M. Marchand, in the *Gazette Hebdomadaire* of Dec. 26, 1884, reports a case of cancer of the thyroid body, which is interesting on account of its rarity, the peculiarity of its progress, and the symptoms to which it gave rise. The patient was a woman thirty-two years of age, without hereditary taint of any kind. She had always had a large neck. At the time when she first came under the notice of M. Marchand, a tumor of the size of a hen's egg was discovered on the right of the median line. Its appearance was first noticed six months previously. In contrast with the cases heretofore published, in which a rapid progress has been noticed, complicated with disturbances due to the compression of the œsophagus, the tumor was developed slowly, and the respiratory function alone was interfered with. Dyspnœa, at first temporary, finally, at the end of six months, became constant. Accurate examination was impossible, as pressure produced marked stenosis of the trachea.

Treatment with potassium iodide gave only temporary relief. Thyroidectomy was then decided upon in preference to tracheotomy. A longitudinal incision was made, extending to the sternal notch. The tumor thus exposed was of a reddish-white color traversed by large vessels, perfectly circumscribed, but enveloped in a fibrous tissue, from which it was difficult to isolate the vessels. Ligatures were applied above and below, and the tumor was excised between them. The trachea was found intact. The edges of the wound were united by metallic sutures and the wound rapidly healed, and the woman left the hospital in three weeks.

The tumor was very large, projecting nearly four inches, and having a circumference of nearly ten inches. Microscopical examination showed it to be cancerous. After three months, there are no signs of return, either local or general. Rose, up to 1879, only could collect three cases of thyroidectomy, all followed by death. Billroth has since had three cures—two temporary, of two years' duration, and in a third there has been no return, two years after operation.

Chloral in the Convulsions of Children.

Dr. Henry Dwight Chapin discusses, in the *American Journal of Obstetrics*, December, 1884, the relative merits of chloral and morphine in the convulsions of children. He believes that while morphia will, in many cases, control the convulsions, yet it is an extremely dangerous remedy, tending to hurry the congested brain into a fatal stupor. He strongly advocates the rectal injection of chloral. He has seen many cases, as critical as those in which the morphine was given subcutaneously, yield almost as quickly to chloral administered by the rectum, as doubtless have many others who have thus employed the latter. Some weeks ago he was called late at night to see a baby fifteen months old, who had been in a convulsion over an hour. The infant was lying in a deep stupor, with jaws tightly set, thumbs pressed into the palms, and having convulsive seizures every few minutes. He tried in vain to pry open the teeth and get down a solution of potassium bromide. An enema was next given, although the mother positively stated that no indigestible substance had been taken. No fecal matter came away, and the water remained in the bowel; as no time was to be lost in waiting for it to be expelled, he at once injected five grains of chloral in solution into the rectum. The convulsive movements soon became less violent, and with longer intervals between. The chloral was repeated several times, and the convulsions soon stopped entirely. The stupor remained, but in several hours it was gradually replaced by a natural sleep, and the next morning the baby was quite bright, although looking pale. In this case he could find no cause for the convulsions, but thinks if sufficient morphine had been given to control them, the stupor would have ended fatally.

Atropia in Severe Electric Shock.

As Dr. Wm. G. Eggleston says in the *Med. Record* (January 31, 1885), our text-books have very little to say, or in truth nothing, about the treatment of severe electric shock. Hence his observations possess a peculiar interest. The predominating symptoms in the three cases which

he records are those of extreme cardiac and respiratory depression. He used atropia hypodermically in doses of $\frac{1}{100}$ to $\frac{1}{80}$ of a grain with most excellent results. We will transcribe one of his cases as a fair sample of all of them:

Case 2. C. K——, twenty-six years of age, received a shock from a dynamo-electric machine on October 8, 1883. He walked about ten steps, said that his arms and hands felt dead, and then became unconscious. When first seen, within ten minutes after the accident, the hands and fingers were strongly flexed; the head was thrown back; the pupils widely dilated and insensible to light; respiration jerky and gasping, shallow and very slow; the pulse slow and irregular, though not very feeble; and the patient almost entirely unconscious, but sometimes writhing as though in agony. At times, when the head would be thrown back farther than usual, the anterior portion of the neck was markedly bulged and tense. At 8.20 p. m., fifteen minutes after the patient was first seen, one-hundredth grain of sulphate of atropia was given hypodermatically; within twenty minutes the respirations and pulse became more frequent and more regular, and the patient soon so far regained consciousness that brandy-and-water and spir. mindereri were administered every fifteen minutes. The respirations and pulse became irregular again at 9:55, and one-eightieth grain of atropia was injected, with improvement in twenty minutes. Though not entirely conscious, he was able to swallow the brandy and ammonia, which were given every fifteen or twenty minutes. He now steadily improved, until at 12 o'clock he sat up and was carried home. Beyond a slight weakness and a "curious feeling about the head," there were no unpleasant after-results.

Inhalation of Oxygen and Ozone.

In the laboratory of Prof. Dogiel, in Kasan, a series of investigations have recently been made to determine the effect of the inhalation of oxygen and ozone. They have been published by Dr. Filipow in Pflüger's Archiv. xxxiv., p. 335.

The inhalation of oxygen gave no result whatever. If it has any effect, it is not greater than that of pure country or sea air. According to the experiments, no good can be expected from the inhalation of pure oxygen in cases of poisoning by chloroform or carbonic oxide. Ozone, when administered undiluted, causes irritation of the upper air-passages; while diluted it has a slightly depressing effect, and seems to incline people to sleep. Its employment in the human being is therefore contra-indicated if undiluted, and diluted it is without effect.

Dr. C. Binz, who first pronounced ozone a hypnotic, as the Medical and Surgical Reporter mentioned at the time, criticises F.'s article in the *Berl. Klin. Wochensch.*, 1884, No. 70. He says that individuals, to be brought under the hypnotic influence of ozone, have to be in the recumbent position, and must not be persons whose air-passages become irritated under its use, as the remedy seems to exert no hypnotic action in such cases. B. finally recommends ozone in irritable conditions of the brain and spinal cord, and advises the continuance of the inhalation for a period of four weeks or longer, to be daily administered for about half an hour. We generally notice, when we live in summer in the country, that we become very sleepy early in the evening; and as at that time the air in the country is rich in ozone, the effect mentioned may be explained by the hypnotic influence of the gas, and would also be an evidence of it.

Caffeine in Bright's Disease.

The medicinal treatment of this disease is so unsatisfactory that we oftentimes feel inclined to grasp at straws; and while caffeine may be only like grasping a straw to save a drowning patient, yet we deem it well to report what Dr. Alfred S. Gubb says in the *Lancet*, February 28, 1885:

"I have had a case of sub-acute Bright's disease (following presumably on an acute attack) under my care for some two months, with scanty, highly albuminous urine, and gradually increasing ascites and œdema of the lower part of the body and lower limbs. The only treatment which had benefited the patient in the least was the milk diet; but, in spite of a temporary improvement on this account, symptoms of approaching uræmia, and the inefficacy of any medicinal treatment, or hot-air baths, etc., rendered the case an anxious one. I then tried caffeine in the two forms supplied by Messrs. Burroughs, Wellcome & Co. for use at this hospital. First the effervescent citrate of caffeine, an elegant and agreeable preparation, but which only contains a grain to a drachm; and is therefore hardly as convenient as the Wyeth's tablets, each of which contains a grain; being readily soluble, they constitute a very convenient method of administration. The result of three or four days' treatment at the rate of fifteen grains a day, in three doses, was to increase the flow of urine from half a pint to between three and four pints of clear urine, though still slightly albuminous.

The epigastric and lumbar pains disappeared, together with the cerebral and visual troubles, and the condition of the patient has uninterruptedly improved ever since, and she has left the hospital quite convalescent."

Labor Complicated by Vaginal Hernia.

Before the Harveian Society of London (*Med. Times*, February 28, 1885,) the notes of this case were read by Mr. W. H. Evans. The tumor when first discovered was of small size, and situated in Douglas's pouch. It gradually increased, and fluctuation was obtained. When seen in consultation by Mr. Bryant, it had so far enlarged as to allow percussion to be practiced when the labia were separated; the resonant note obtained left no further doubt as to its nature. Labor occurred at full term, and much anxiety was occasioned by the protrusion of the tumor at each successive pain. Taking advantage of an interval of rest, Mr. Evans was able to reduce the hernia, and rapidly to bring the labor to a satisfactory termination. The patient did well.

Dr. Alderson mentioned the case of one of his patients in which an eminent obstetric physician, since then deceased, had, in consultation with him, diagnosed hernia in Douglas's pouch. The lady, then four months pregnant, was recommended to spend three months in bed. After delivery, which took place without further complication, the swelling was discovered to be not hernial, but, as Dr. Alderson originally believed, cystic. It was punctured, and sebaceous matter escaped.

Mr. Power inquired whether there was any evidence of the tumor in Dr. Alderson's case having been a sebaceous cyst, the situation described being most unusual for such cysts.

Dr. Silcock suggested that the tumor in question might have been a congenital ovarian cyst.

Cocaine in Chronic Cystitis and Irritable Bladder.

If all that is claimed for cocaine is made good, it will truly turn out to be one of the most valuable additions that has ever been made to our materia medica. Dr. F. F. German thus writes to the *Lancet*, February 28, 1885:

I have been treating a gentleman, over sixty-eight years of age, for chronic cystitis, bladder sacculated, dependent on prostatic disease; latterly, the symptoms have been much aggravated, micturition every few minutes. with intense pain at the neck of the bladder, thick muco-purulent discharge when the bladder is washed out (twice daily with boroglyceride), and diarrhœa. Almost every remedy has been used—by mouth, injections, suppositories—all fruitlessly. A fortnight ago I injected into the bladder one-third of a grain of hydrochlorate of cocaine in four or five ounces of tepid water; it was retained for ten minutes. Next morning I was pleased to find he had been perfectly free from pain, and the diarrhœa soon ceased. I have since used it four times, the freedom from pain lasting from twenty-four to thirty hours, but the frequency of micturition and quantity of sediment remain unaltered. The last few days he has complained of similar pain along the urethra, and I intend using the gelatine bougies medicated with cocaine, as suggested by Mr. Bellamy.

Subspinous Dislocation of the Humerus.

Mr. Haslam reports the following case in the *Lancet*, January 3, 1885:

J. McC——, aged thirty-two, applied at the hospital, saying that he woke up in the middle of the night feeling pain in his right shoulder, and that this was due to some twist in bed. (It was afterwards ascertained that he had had a fit.) On examination there was found to be considerable pain about the shoulder on any attempt to move it; the arm was fixed, with the scapula flexed to an angle of 45°, slightly rotated inwards, and the axis of the bone was directed to a point just posterior to the glenoid fossa. On feeling for the head of the bone below the acromial end of the clavicle a distinct depression was felt, with hollow tension of the anterior fibres of the deltoid. On inspection posteriorly a slight swelling was noticed just below the junction of the spine of the scapula with the acromion process, and on manipulation this was found to be due to the upper end of the humerus resting on the dorsum of the bone. No reliable measurements could be taken, as he had sustained an injury to the elbow when a boy which had totally disarranged the bony prominences. Reduction was easily effected under anæsthetics by a movement of abduction, extension, and rotation outwards.

Warm Douching of the Head and Neck in Insomnia of Continued Fevers.

In connection with this therapeutic procedure, Dr. Arthur J. Campbell reports the following case in the *Brit. Med. Jour.*, January 24, 1885:

In 1879 I was called one night to a severe case of scarlatina in a girl aged 13 years. Her temperature was high, the pulse very quick and feeble, the tongue brown; sordes had collected

about the mouth; and there was jactitation. The rash was very dark-colored, and her condition was rendered the more serious by sleeplessness, continuing for four days. On the day following my first visit, I administered the warm douche to her head and neck, the hair having previously been shortened. Within an hour after the process, she fell into a refreshing sleep, which lasted for about twelve hours, during which time she was disturbed two or three times for the purpose of administering food. The patient was soon convalescent, and I attributed her recovery to the timely relief given by the douche.

I could give other cases illustrating the usefulness of the warm douche in certain head cases, but do not wish to encroach on valuable space.

Aseptic Silk.

From a foreign exchange we learn that Mr. H. W. Freeman, of the Royal United Hospital, Bath, (England), has been using chromic acid silk sutures in abdominal sections to bring together the abdominal parietes, also in perineorraphy and in excisions of the breast, and he claims that deep sutures may be left in the abdominal walls for three weeks, in the perineum for a fortnight, and in the breast for the same length of time, without the slightest change occurring in the texture of the silk or sepsis in the course of the suture. China twist seems to be hardened by this process, and rendered impervious to the surrounding secretions. The silk is prepared by boiling it in a two per cent. solution of chromic acid for ten minutes, and allowing it to soak for twelve hours subsequently in a one per cent. solution. A stronger solution destroys the silk and renders it brittle.

Custom Breeds Tolerance.

This is an old and unquestionably a true saying, as also is the remark that *custom* can alter *custom*. Every once in a while we hear of some remarkable case wherein custom has bred a great tolerance of the effects of narcotic drugs, but one the most striking is that reported by Dr. F. E. Image in the *Brit. Med. Jour.*, December 27, 1884, where, in answer to a query, he says that he can well remember, as a boy, an old lady, living not far from Bury, one of his father's patients, who was in the habit of taking one gallon of laudanum a week for many years. She was a small, rosy-faced, sprightly old lady, and was between 80 and 90 when she died. Besides the laudanum, she was in the habit of taking no inconsiderable quantity of gin.

Cæsarian Section—Death—Autopsy.

In the *Lancet*, January 24, 1885, we find the following report:

On December 30, 1884, Dr. Dolan performed the operation of Cæsarian section on a primipara, aged 26, a pianist, whose height was only 3 feet 11 inches. She had been in labor five hours. There was great pelvic deformity, the antero-posterior diameter being one inch and a half. Carbolized catgut was used for the uterine wound, silver wire for the abdominal walls. The child was living. The patient died in fifty-four hours.

A post-mortem examination was held seventeen hours after death. The uterine wound was found open, a large clot having been forced through it, owing to the occurrence of vomiting. There was peritonitis, which was the probable cause of death.

Porro's Operation.

From the *Lancet*, February 28, 1885, we learn that *Il Morgagni* (7th instant) reports a case of Porro's operation, successful to mother and child, which was performed at Gubbio on the 15th ult. by Dr. Lodovico Vincini. The patient, M. M——, aged forty, was a rachitic primipara, with extremely contracted pelvis. She was in the ninth month of pregnancy, and had been twelve hours in labor, when chloroform was administered. The removal of the uterus and appendages occupied fifty-five minutes. The spray was not used, but a strictly antiseptic dressing applied. The patient quickly recovered from the anæsthetic, and in twenty-four hours was in the most favorable state. This continued, and the child, a female, is also well.

CORRESPONDENCE.

Cleanliness in Labor Cases.

EDS. MED. AND SURG. REPORTER :—

In the number of the REPORTER for January 24, reference is made to an article by Dr. G. H. Balleray in the *American Journal of the Med. Sciences*, and the treatment which he suggests for labor complicated with concurrent erysipelas. Cleanliness appears to be his principal precaution.

In the lying-in department of the Vienna Algemeine Krankenhaus some 10,000 deliveries occur annually, and the elaborate precautions which are observed to prevent septic infection, together with the marked freedom from the same which has been the result, offer suggestions to the general practitioner in the treatment of all puerperal cases. The necessity of cleanliness in attending labor was long ago insisted upon. The extent to which it shall be carried is perhaps debatable. It would seem that it is quite as necessary for the general practitioner going from bed-

side to bedside, from autopsies, low fevers, etc., to the woman ready for delivery, as for the specialist or student in his ward.

Perhaps the antiseptic methods used in Vienna may be of interest and not generally known here. In Prof. Carl Braun's ward, for instance, before examining a case, or attempting delivery, the hands must

1. Be washed with soap and water, and well-scrubbed with a stiff brush, especially the finger nails.

2. They must be dipped into a five (5) per cent. solution of permanganate of potassa, and

3. Passed through the same process with a solution of from two to five per cent. of oxalic acid, which decolorizes the permanganate stain on the hands.

4 and finally, the hands are washed in a solution of carbolic acid, of a five per cent. strength, and are then ready for the vaseline and an examination.

As soon as the after-birth has been delivered the vagina is washed out, high up, with a two per cent. solution of carbolic acid at the temperature of the room. About one gallon of the solution is used, and the injection is given by means of a huge glass fountain syringe. Almost as soon as the child is born, and often before the cord is cut, its eyes are syringed out with a two per cent. solution of nitrate of silver.

A more thorough antisepsis can hardly be conceived of, and the results seem to justify the trouble, though I cannot at this moment lay my hands on the statistics of the hospital.

W. O. Stillman, M. D.
86 *South Swan street, Albany, N. Y.*

News and Miscellany.

Climate and Intellect.

Charles Dudley Warner thus writes in *Harper's Magazine* for April:

"A great deal has been said about the effect of climate upon intellect, and not much of the effect of intellect upon climate, or, to be more exact, of the power in mental activity to resist or control climatic influences. Some philosophers have held that there is an occult sympathy between mind and matter, and that a great accumulation of mind upon one point—that is to say, the direction of a strong current of desire for or against some operation of nature—would be effective. For instance, if all the people in a wide district suffering under drought should unite in a common longing, a sincere mental struggling, for rain, that nature would feel the subtle influence through all its being, and rain would come. Unfortunately the experiment has never been tried, for common consent at any moment never has been attained—there is always somebody who has hay out.

"But this at least we can say, that it is safer to have the desire of the general mind in the right direction. Now two of the vulgar notions of this latitude are that we need 'bracing up,' and that snow is a useful product—consequently that the more severe cold weather we have, and the more snow, the better off we are. And people go on believing this to their deaths every year. As to snow, there is a sentimental notion of its beauty as well as of its utility, and a good deal can be said for it from an artistic point of view. But we are not placed in this stern world merely to indulge our sensuousness. We are put here to make the most of our powers, in view of a hereafter; and long life is a duty, besides being, in the Old Testament view, a reward of virtue. It is probably necessary to have snow at the poles in order to keep the poles cool, and insure a proper circulation and change of air round the globe; just as it is necessary to keep the equator so hot that it is as unpleasant to sit on it as on a kitchen stove. Snow, indeed, might do little harm in a land where the sun never shone. But in this region, where the sun does shine, where half the winter days are clear, the only effect of the presence of snow is to fill the atmosphere with chilling moisture, lung fever, pneumonia, and that sort of thing. The pleasanter the weather, the more sunshine we have; with snow on the ground, the worse is our condition. And yet it is vain to argue this with the people. They are wedded to traditional ideas and full of prejudice, and it seems impossible to convince them that snow in this region is harmful. It does no good to demonstrate to them that but for snow we should have a royal winter climate. On a small scale we see occasionally what it might be. There were such days in January last. The snow had disappeared, the sun shone with the light but not the heat (like an electric lamp) of May, and the air was pure, exhilarating, but not damp and grave-like. It would have been perfect but for the chill that came down from the vast snow-fields of Canada, where cold and snow are worshipped and féted all winter. And yet, after such experience, people, convinced, go back to snow. The ignorance of this scientific age is discouraging.

"The other vulgar notion is that a hand-to-hand struggle with extreme cold for months does a person good—braces him up. It must be admitted that up to a certain point any struggle or trial is invigorating to the moral and intellectual nature. But we see what too much indulgence in this leads to. The Esquimau is but little raised above the polar bear and the seal. His whole existence is just an effort to keep alive, to get blubber and skins enough to generate and keep in his body vital heat. He can think of nothing else; he has room for no other mental effort. We see the same thing in the diaries and accounts of the polar exploration fanatics. It would be the most painful reading in the world if it were not so monotonous. Each one tells exactly the same story—the story of his physical struggle to keep alive with the thermometer fifty degrees below zero. Soon the mind has no other occupation than this struggle. It almost ceases to work in any other direction. This is interesting to us at first as a study of the capacity of the human organism to resist the unrestrained attacks of nature. The experience of a person who should in this latitude, in winter, retire to an ice-house, with a hatchet and a supply of frozen hash, a whale-oil lamp, and a fur overcoat and body-bag, and sit on the ice in the darkness, and record his feelings, the gradual lowering of the vital powers, the concentration of the mind

upon the numbness of his legs, would doubtless have a physiological interest. But the second experimenter would not interest his readers so much as the first with his narrative."

The Crow and the Country Doctor.

(*A Medical Fable.*)

The *Edinburgh Med. Jour.*, March, 1885, tells us that "A Flock of Crows was much alarmed one day at the sight of a strange object in the midst of a field upon which they customarily fed. They at once called upon an Old Crow who practiced his profession in those parts, and who made a specialty of corns, to give his opinion about the matter. The Crow, having examined the object, shook his head, and said that it was a serious case, and that it was lucky he had been summoned so soon, though he should have been called earlier, and he would like the advice of his friend the Owl, who had had the benefit of travel abroad, and who was particularly skillful in cases which called for the Steady Use of the Eyes. He would also like to have the Frog, who was spending his summer vacation by a neighboring pool, and who had a wide reputation for his physiological knowledge, to see the case. The Crow, the Owl, and the Frog met, and having studied the object at a suitable distance, withdrew to the shade of a High Wall in order to deliberate. The Frog first opened his mouth, and observed that it was a nice Case, which reminded him of a very curious experience that he had had with a piece of Red Flannel two summers before, when he received a severe contusion upon the centre of Goltz. After telling all about this very apposite event, the Owl observed that such cases were extremely rare. He had, however, had two very much like them, the details of which he had forgotten. He then related some very humorous obstetrical stories, which much amused the Crow.

Having received these opinions, the Crow thanked his Colleagues for the valuable light they had furnished. He had himself been at first disposed to think the trouble a case of *Terror Corvorum*, or Scare-Crow; but the advice given reminded him now that the appearance in the cornfield exactly resembled a country doctor whom he occasionally met, and who, after practicing medicine for forty years, was at present trying to live on What he had Saved.

"This diagnosis was finally agreed upon, and reported to the anxious Crows outside, who were much relieved.

"Moral.—This story shows the profit that is got from consultation, and the lucrative nature of the practice of medicine."

The Decrease of Population in France.

The Paris correspondent of the *Brit. Med. Jour.* (February 7, 1885,) writes that M. Gustave Lagneau, the well known statistician, affirms that the population has decreased in twenty-six departments of France. From 1836 to 1881, among 648,027 inhabitants, the depopulation has, on an average, reached seven per cent.; emigration to other towns is the principal cause. M. Lagneau deplores this movement of the peasants towards large centres. In large cities, particularly in Paris, there are few births in proportion to the adult population. Illegitimate births present a much larger proportion than the legitimate; and these are always accompanied by a much larger death-rate, which is about double that of the legitimate children. Emigration to distant countries or colonies, which is a fourteenth less than that from department to department, is not so disastrous; it leads to importation, and thus improves the condition of those remaining in the mother country. The emigrants also are surrounded by healthy conditions, and have families, except emigrants to Senegal and Guiana. Four departments in Normandy undergo depopulation because there are few children born. In other departments, the death-rate is greater than the birth-rate, but immigration strikes the balance. M. Lagneau says this low birth-rate may be interpreted to mean good for the individual, but future disasters for the nation. A scanty population may enjoy advantages which lessen the chances of illness and early death, but it also invites a considerable immigration. In 1881, this reached the number of 1,001,090. These invaders in time of peace live and thrive, yet the actual French population remains three or four times less than of England or Germany, and this, he fears, will lead to political inferiority.

Children of Idiots.

From the *Journal of Nervous and Mental Diseases* we learn that certain developments during the past few years in the Department of Public Charities and Correction, New York city, have raised a question of some interest. An idiot girl in one of the Randall's Island institutions was found pregnant by, Commissioner Brennan stated, one of the male idiots. Owing to the failure to make a scientific investigation, the paternity of the child and its ultimate fate remain in doubt. Berkham (*Allgemeine Zeitschrift für Psychiatrie*, Band xxxvii.) has investigated the question of the capability of microcephalic idiots to propagate their species. An imbecile man, married for some years to a healthy woman, did not have any family. A healthy man who married an idiotic wife had three children by her, two of whom are idiots. These cases support Vogt's views, that while female idiots may bear children, the males are very frequently incapable of begetting them. Marriages rarely occur between male half-cretins and healthy women, but are not uncommon between healthy men and semi-cretinous females who may happen to own a little property. Berkham has never seen the progeny arrive at maturity; if not still-born, the children usually die during childhood. The best-marked case of microcephalous idiocy on Randall's Island is sexually well developed, and there is no doubt that in his case paternity is possible. The results in the few cases cited by Berkham are supported by the researches of Monteyel, as to heredity in psychically degenerated families.

The Germinal View of Disease.

Under this title the *London Med. Press* (February 4, 1885,) says:

In this third and concluding Cantor lecture on "Climate in Relation to Health," Dr. G. V. Poore uttered a very decided opinion respecting the in-

timate dependence of phthisis on a specific bacillus. Dr. Poore described recent inquiries as proving that this disease is due to a bacillus; and that in the same connection, therefore, the affection must in future rank among infective disorders. Concerning the diffusive power of smallpox contagium, reference was made to recent experiments tending to confirm the belief that the infective particles may be carried at least to a distance of hundreds of thousands of feet from the place of local outbreak. Hay fever, also, was discussed, and the results arrived at by Mr. Blackley, showing the fever to have been caused by pollen grains carried by the atmosphere, were discussed. Epidemic influenza, potato disease, and other affections were employed in turn as illustrations of the influence of atmospheric conditions as a determining factor in the production of diseases, and at the conclusion of the lecture, a general summary of the objects held in view during their delivery was given by Dr. Poore, who said that he had endeavored in these lectures to show that many diseases which we were apt to attribute to climate were, in reality, due to our own ignorance. A knowledge of the laws of sanitation, and a strict application of those laws, has greatly improved the health of the British soldier both on home and foreign stations, and a reference to the health returns of the army was the best proof of what he had asserted with regard to climate.

Cremation in France.

From a foreign exchange we learn that cremation is gradually being introduced into France, and will soon become recognized as a legal mode of disposing of the dead. At a recent meeting of the Council of Hygiene, Prof. Brouardel, who was charged to report on the measure, proposed to establish a crematory at Père la Chaise, to be employed as a commencement for the incineration of bodies that have been used for anatomical purposes. The following is a summary of Dr. Brouardel's report on the subject: 1. As regards salubrity, the establishment of a crematory apparatus in the cemetery of Père la Chaise would present no danger. 2. Three apparatus working for eight hours would be sufficient to destroy the débris of corpses. 3. It will be necessary to establish a separate mortuary room, so as to prevent any delay in the prompt disappearance of the débris.

Women Physicians in England.

A London correspondent writes of these as follows:

Of lady doctors there are at present few in England, but the select few who have taken are already reaping a rich harvest of fees. The two most distinguished lady practitioners in London are Dr. Garrett-Anderson, a sister of the wife of the late Professor Fawcett, and Dr. Arabella Kenealy, a daughter of the late Dr. Kenealy, a brilliant advocate and finished scholar. Both of the ladies I have named enjoy large and lucrative practices, and medical men of the highest standing, who have met them in consultation, while strongly objecting to the admission of ladies into the profession, have told me that they are certainly not inferior in ability to doctors of the highest standing of like age and experience.

Cincinnati Academy of Medicine.

At a recent meeting of this Society, the following officers were elected for the ensuing year:

President—Dr. Samuel Nickles.
First Vice-President—Dr. A. E. Heighway.
Second Vice-President—Dr. Wm. Judkins.
Recording Secretary—Dr. G. A. Fackler.
Corresponding Secretary—Dr. A. G. Drury.
Treasurer—Dr. Geo. E. Jones.
Librarian—Dr. J. L. Fogel.
Trustees—Drs. J. H. Buckner, Jas. M. French and O. E. Osmond.

Items.

—*Professor:* "Mention an oxide."
Student: "Leather."
Professor: "Oxide of what?"
Student: "Oxide of beef." Exit professor.

—M. Martineau has recently treated suppurating buboes by means of the thermo-cautery, whereby an ulcer is formed which tends to heal rapidly.

—The Austrian Government has recently ordered that all phthisical hospital patients be isolated, and that such precautionary measures as necessary be adopted against the extension of the disease.

—In an original article contributed to the *Gazette Hebdomadaire des Sciences Médicales de Montpellier*, M. Grynfelt has advocated the use of injections of hydrochlorate of cocaine to facilitate catheterism.

—A Berlin medical journal says one of the specialists of New York has made five millions of dollars by his practice. The *Medical Record* asks if this paragraph is a scheme to flood New York with Berlin specialists.

—A simple disinfecting lamp is formed by burning in a common lamp a mixture of equal parts of benzine and bisulphide of carbon. Sulphurous acid vapor is abundantly given off in the burning of the mixture.

—(The doctor having advised the administration of a five per cent. solution of carbolic acid.) "Here, boy! Take this and get a twenty-five per cent. solution of carbolic acid. (*Aside.*) What is the use of being stingy in such a matter?"

—Dr. A. von Harlingen recommended at the last meeting of the American Dermatological Association, the following formula for a paste for the removal of comedones (acne); it was first suggested by Unna: Glycerine, 3 parts: vinegar, 2 parts; kaolin, 4 parts.

—A writer in the *Therapeutic Gazette* speaks highly of sulphuric ether inhalations as an expectorant in subacute or chronic bronchitis. He also recommends it to be taken in the following manner: Drop five to ten drops on a lump of sugar, and take every three or four hours.

—The *Indian Medical Gazette*, quoted by the New York *Medical Record*, says: As in England,

melanotic cancer is an ordinary cause of death in Bengal among gray and white horses. We can scarcely drive through Calcutta without seeing animals having the characteristic globular tumors beneath the skin.

—Dr. Joseph E. Warren, of Boston, suggests that the most convenient form for using muriate of cocaine in ophthalmic practice, is that of gelatine disks. He has used these disks with much satisfaction. Each one contains about half a drop of an eight per cent. solution (gr. $\frac{1}{25}$). This is a more economical method of applying the drug than that of using a solution.

—Dr. Preis (*Weekly Medical Review*) has noticed in 217 prostitutes a sort of lipomatous tumor seated between the sixth and seventh cervical vertebræ, over the spinous apophyses. These hemispherical tumors are little, firm, elastic, mobile, and not painful. He considers them to be due to pressure and friction during coitus, and has not found them in those who are not prostitutes.

—The Illinois Fish Commission, under the very able management of the present Commissioners, is proving to be a means of great satisfaction and benefit to the people of its State. Through its agency the cultivation and protection of food fishes has been greatly promoted, and interest in fish culture has been awakened, and hundreds of ponds, lakes, and streams have been stocked with fine fish.

—The *Med. Age* truly says that it will be a great relief to suffering thousands to learn, on so good authority as Dr. Piffard, that the bromide of arsenic is a cure for pimples. He recommends a one per cent. solution, of which one or two minims are to be taken in a wineglassful of water three times a day, on an empty stomach. The dose is to be diminished as the pimples begin to disappear.

—In England, recently, several children were observed to exhibit all the symptoms of poisoning by morphia. On searching the children's pockets the source of their illness was made apparent. It seems that some boys stole a seven-pound packet of cough lozenges, containing morphia, from a wholesale chemist and druggist of Chester, ate a large number of them, and distributed some among their school companions. The children all recovered.

—Three medical celebrities met together to consult at the sick-bed of General X——. After they go, the general rings for his man-servant. "Well, John, you showed those gentlemen out—what did they say?" "Ah, General, they seem to differ with each other. The big fat one said that they must have a little patience, and at the autopsy—whatever that may be—they would find out what the matter was."

—A husband separated from his wife in New Jersey on the ground of cruel treatment, because she sprinkled his underclothing with croton oil in order to keep him from going to the club and induce him to spend his evenings at home. The expedient was so successful that the wife imparted the secret to some other ladies, but the resulting endemic led to discovery of the trick.

—The Aberdeen Philosophical Society has appointed a committee to investigate the purity of the air in the schools of the city, and also to consider the best means for ventilating the schools. The chemical investigations of Mr. Jamieson, city analyst, showed that the exit air contained a very large proportion of carbonic acid; while the outside contains 4 to 5 parts of carbonic acid per 10,000 of air; the amount of carbonic acid of the exit air varied from 12 to 25 per 10,000.

—Bergh, of Copenhagen, after narrating three cases of cutaneous horns, adds, "According to Lebert, such horns give rise in 12 per cent. of cases to consecutive epithelioma. Occasionally the epithelioma is the primitive affection on which the horns develop themselves later. On account of their affinity to cancer, it is best to extirpate the horns as soon as possible, and to remove the whole skin which forms their foundation."—*Hospitals-Tidende*, 1884, No 32, vol. ii.

—Before the Sheffield Medico-Chirurgical Society (Feb. 28), Mr. Baldwin made a few remarks on the feeding of patients immediately following lying-in, suggesting full diet of meat and light wine, even on the day of confinement. He brought forward 434 consecutive cases in which this treatment had been adopted without the loss of a patient, with very little necessity for any further medicine, and with marked relief to the constipation of the first week; the women being physically stronger at the end of the usual lying-in period.

—A gardener, named Croulebois, living at Meudon, in France, has met with his death in a singular manner. He was knocking down nuts from a tree, and, in order to aim with more certainty, climbed into the tree, and kept his face uplifted. A nut suddenly fell on the right eye and crushed it. He was immediately removed to the hospital, suffering intolerable agony. Excision of the eyeball was attempted, but found to be impossible; cerebral congestion set in, and the sufferer died.

—Before the Wolverhampton Medical Society (*British Med. Jour.*, January 31, 1885), Mr. Vincent Jackson read a paper on a cheap and ready way of treating club-foot. Having given a summary of the history of the subject, which dated from 1837, he enumerated the varieties of the deformity, and divided the treatment into operative, manipulative, and mechanical. For the latter purpose he strongly recommended the use of plaster of Paris, as being quite as effectual as, and far cheaper than, the more costly special instruments.

—M. Gosselin communicated to the Académie des Sciences last autumn the result of his experiments to ascertain the action of alcohols and phenols on the circulation of frogs. He has extended this series of researches, and a few days ago stated to the Académie des Sciences that iodoform, tincture of iodine, and biniodide of mercury, have the same action as alcohols and phenols. They coagulate the blood in the capillaries, but more slowly. Oxidized water, zinc-chloride, and boric acid fail to produce the same phenomena, though they coagulate blood in contact with the air.

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

STATISTIC AND OTHER FEATURES OF STILL-BIRTHS.

BY THOS. SOZINSKEY, M. D.,
Of Philadelphia.

A familiar passage of a well-known book reads, "Man that is born of a woman hath but a short time to live." To what a great number, however, not even that pitiful tale applies! The still-born, those who die before experiencing a glimmer of consciousness, are shockingly numerous. It is not a pleasant subject on which to dwell, but many features of it are not without interest, and some certainly well deserving of the study of physicians.

I may remark, before proceeding to present statistics of still-births, that the children who die at the threshold of life are very often such as deserve to cross it. If this were not the case, I would not suggest a regret that the number of still-born is so great. For I believe it is not a misfortune altogether either to the child itself, or its parents, if denied a brief season of miserable life. The world is over-stocked with puny children, without promise. It was not rank unwisdom on the part of the Spartans to have infants cast aside whom "nature had not given at first any strength or goodness of constitution." (See Plutarch's "Life of Lycurgus.")

The average number of still-births in Philadelphia, every year for the ten ending with 1883, was 877. This number is equal to one to every 21.5 of the children born alive and reported. And, curiously enough, the number bears almost a like proportion to the number of deaths, being one to every 21.4.

There is sufficient reason for believing that the still-births are not all reported. But no doubt there are some cases put on record as such that ought not to be, not being dead when born.* Tidy very properly says: "Nothing can justify the use of the term being applied to children that have lived for some time after birth, as certain authors have done." (*Legal Medicine*, vol. iii., p. 157, Wood's Library Edition.) However, whether the children erroneously said to be still-born are equal to the number said to be born alive, when really still-born, cannot be definitely known. I am inclined to think that there are many instances of the latter, especially among Roman Catholics, by whom children who die before receiving baptism are consigned to unhallowed graves. It is easy for the doctor to deceive his patient; and, indeed, a little deception is, to some extent, excusable here, if it be likely that it will prevent serious trouble of mind, or body, or of both. The good nature of doctors generally makes them disposed to please their patrons.

The returns of still-births are, no doubt, far

*In the eye of the law, a child may breathe, and even cry, and yet not be born alive. Unless completely extruded from the mother, a child is not legally born. It can hardly be denied, however, that a breathing child is a living one. Is a child, then, that breathed, but has ceased to breathe before it has been completely extruded from the mother, still-born, or not? Legally, it is, and hence should be so regarded by the attending physician. Again, what is the test of being alive after birth? Breathing would seem to be enough. Tidy says: "The beating of the child's heart is of all tests the test of live-birth" (op. cit., p. 156). According to Scotch law, the child must cry.

less defective than those of live-births in Philadelphia. This is accounted for by the fact that a burial cannot take place without a death certificate. The returns of live-births are known to be extremely defective. As already stated, the number scarcely exceeds the number of deaths. Some years it is even less, as in 1875, 1876, and 1881. The deficiency is likely over a quarter of the whole.*

I have said above that in Philadelphia the still-births bear almost the same proportion to the number of deaths as to the live-births reported. Doubtless the actual proportion of still-births to deaths is very nearly one to 21.4. In connection with this statement, I deem it of interest to give the following table, compiled from the United States mortality statistics for the census year ending June 1, 1870:†

State.	*Proportion of Still-births to the whole mortality.*
Connecticut	1 to 104.5.
Georgia	1 to 24.5.
Illinois	1 to 30.3.
Indiana	1 to 69.0.
Iowa	1 to 70.5.
Louisiana	1 to 27.3.
Massachusetts	1 to 93.3.
New York	1 to 112.1.
Pennsylvania	1 to 39.4.
Virginia	1 to 60.0.
Wisconsin	1 to 50.0.

These figures are certainly very remarkable. In Georgia the still-births are equal to one to every 24.5 of the deaths, while in New York they are only one to every 112.1! The Southern States have far the most still-births. Still, the returns for Illinois are not good, and those for Pennsylvania are little better.

It is proper to state that the census returns are in some respects misleading. They are not at all complete; and it is probable that the returns of still-births are more defective than the mortality returns in general. But there is no reason to believe that the returns are much more defective in one State than in another; so that comparisons of the returns of the different States are not at all unfair. A cause of difference in the relative number of still-births to deaths in general in different States, which should be taken into account is the fact that the birth-rate is generally comparatively high and the death-rate low in recently-settled States. In this, one finds some excuse for the large proportion of still-births in Illinois. In Iowa, however, the proportion is not half as large. What is the reason? I do not know. A similar contrast is seen in the returns of two of the older States, Pennsylvania and New York. Who can shed light on the matter?

One still to every 21.5 living births is by no means a very bad showing for Philadelphia. If the returns were complete, it is probable that the proportion would be less than one to every 25. Tidy quotes extensive statistics in the *British and Foreign Medical Review* (No. VII., p. 235) which indicate that from one in 18 to one in 20 births are still-born." (Op. cit., v. iii., p. 157.) Quetelet gives a table in which the proportion of still-births to the whole births are represented to be as follows:

Paris	1 to 19
Berlin	1 to 20
Vienna	1 to 24
London	1 to 27
Stockholm	1 to 36
Strasburg	1 to 11

The mean of the whole table is one to about 22. It is but fair to add that Quetelet's figures are not recent, the work in which they are given being published in 1835. (Sur l'Homme et le Développement de ses Facultés.)

I may state that it would be unfair to compare the proportion of still-births in a city, say Philadelphia, with the proportion in a state or nation, for the reason that the proportion is always greater in cities than in the country. Quetelet studied this point, and presents statistics showing that while the proportion in cities is one to 20.4, it is only one to 38.2 in the country. As to why this difference exists, he says: "May it not be attributed in part to the use of corsets and the habit of tight lacing?" (Op. cit., v. i, p. 125.) Tight lacing is common in the country as well as in cities; and I am not inclined to agree with the philosophical statistican, that it has much to do in producing still-births. A poor state of development and health in cities is doubtless at the bottom of the matter, and the causes thereof are too numerous to mention.

The relation of the season of the year to the number of still-births is an interesting matter. The average yearly number for the ten years ending with 1883, in Philadelphia, in each of the four quarters was, in the first, 237; in the second, 215; in the third, 208, and in the fourth, 217. According to these figures, the cases are pretty

*Expression cannot be too often given to the regret that birth returns and other vital statistics, are extremely defective, and also extremely different in their degree of imperfectness in different places. In some respects it would be better to have no statistics at all than those common in this country.

†The returns of the census of 1880 are not yet published. Blame is placed on the printer. The delay is disgraceful.

evenly scattered over the year. Dividing the year into quarters, beginning with December, the figures are, 231, 231, 210, and 205 respectively. Hence, there were 462 in the colder and 415 in the warmer half of the year. The difference is only 47; still, this is a tenth. These statistics are in accordance with the conclusion of Quetelet that "the number of still-births is greater during winter, and following it, than in summer." (Op. cit., vol. i., p. 128.)

The average number of cases for each of the months during the ten years is as follows:

January	81
February	74
March	82
April	72
May	77
June	66
July	73
August	71
September	64
October	74
November	67
December	76

September would seem to be the month in which a child runs the least risk of being still-born. The still-births are fewer in that month than in any other, although the births in it are more numerous than in many others. As to the latter point—an important one—I may give the following statement from an article published some time ago:

"The figures for a series of years show that about fourteen per cent. less births occur, in Philadelphia, in April than January. April, May, June, February, March, and November, are the months in which the deficiency is specially noticeable." (Medical and Surgical Reporter, August 9, 1879.)

Another important fact to bear in mind is that the months are not all of equal length. Thus, February is from two to three days shorter than the others.

May appears to be the month in which a child runs the greatest risk of succumbing in the ordeal of birth. According to the table, March is the month; but the births in the latter are a ninth more than in the former.

From February forward to May the chance of being still-born increases slightly. This is equivalent to saying that the later in spring a birth occurs the more likely it is to be a still-birth. The explanation may be supposed to lie in the size of the child and the strength of the mother.

With the conclusion just drawn, I have another of equal interest to couple. As already pointed out, it is in September that the chance of a child's being still-born is slightest. August is the next month in degree of favorableness, and July next. Now, it will be observed that these months when reversed then stand in their natural order. Hence it appears that the child that passes most warm months toward the end of uterine life in its mother's womb, runs the best chance of getting out of it in safety. The increasing laxity of fibre produced in the pregnant woman by the heat of summer may have something to do with the matter. It may be that a difference in the size of the child affords another reason. As to vital force, one would expect September's child to be less well endowed than June's.

A study of the sex of still-born children brings to light some curious facts. One of the most remarkable is, that in the economy of nature the female is specially favored at the beginning of life's course. The female still-births in Philadelphia are to the male in the proportion of 100 to 132. This statement is based on the returns for the ten years ending with 1883. According to the report of the Board of Health for 1875, the proportion for the fourteen years ending with 1874 was 100 females to 136.4 males (p. 59). The difference is even greater than this in some places. Thus, in France, for the ten years ending with 1875, there were 144 males to 100 females.

It has been said that the great difference between the number of male and female still-births "is in obedience to a general law which operates with slight variation among different nations and races, through causes which are as yet not well determined." (Report of Board of Health of Philadelphia for 1875, p. 59.) Quetelet was of that opinion; after citing statistics showing about 100 females to 140 males, he refers the difference "à une cause spéciale." (Op. cit., p. 123.) He indicates it as follows: "The conception of a boy supposes a certain excess of force (excès de force) in the woman. The excess should continue during her pregnancy. Should there be a decline, the infant will suffer much more if it be a boy than if a girl." (Ibid. p. 124.) This may safely be accepted as a cause, but not the cause.

The excess of male still-births is said by a writer in "Buck's Cyclopædia of Hygiene," vol. ii., p. 315, to be "no doubt in consequence of the greater difficulty of child-birth due to the superior size of male infants." Hence, he lived to make this statement, because his head was not very large; and, of course, this affords an excuse for its weakness. I cannot agree with him (I do not recall his name); but it is certainly true that

some children perish in their birth because of their excessive size.

A cause of the larger number of male than of female still-births, which should not be overlooked, is found in the fact that there are considerably more males than females born. Extensive statistics indicate that, in Philadelphia, there are about 110 male to 100 female children born, including the still-born. I may add, that the difference varies in different places, and is not constant from year to year in the same place.

The following table shows the average number of male and of female still-births in each of the months, in Philadelphia, for the ten years ending with 1883:

	Male.	Female.
January	46	35
February	39	35
March	48	34
April	39	33
May	46	31
June	40	26
July	42	31
August	40	31
September	36	28
October	42	32
November	38	29
December	44	32

It will be observed that September is the month in which the male still-births are least, and June is the one in which those of females are least. The table seems to show that March is the hardest month on males, but in reality May is, for there are over a tenth less births in the latter than in former.

An examination of the number of still-births of either sex in each month of the ten years ending with 1883, indicates decided irregularity in the statistics. Thus, in February, 1874, 1875, 1876, and 1882, the female outnumbered the male still-births; while in February, 1880, the males were over double the number of the females, there being 50 of the former and 24 of the latter. In June, 1882, the male still-births were 47, and the female only 13—a most remarkable difference.

According to the table, the difference between the number of male and of female still-births is greatest in the month of June, there being 40 of the one and 26 of the other. As remarked above, June is the month in which the number of female still-births is least. The difference between the number of either sex is least in the month of February, there being 39 males to 35 females. It is in that month, as I have already pointed out, that the female still-births are most numerous.

The monthly variation in the relative number of still-births of either sex is a matter which cannot be easily explained. Why is the difference between the number of male and of female still-births less in February than in any other month of the year? And why is the difference greater in June than in any other month? The reasons are probably very similar to the reasons why there are relatively more female still-births in February and less in June. Is there a great disproportion between the number of births of either sex in these two months, the females being in excess in February and the reverse in June? A careful examination of the statistics leads me to believe that the female births are in excess in February and the reverse in June; still, the excess in the one case and the deficiency in the other, are very slight. One must therefore hold to the belief that female children experience more difficulty in being safely born in February than in June.

It is hard to tell why there are so many still-births. This much is certain: they multiply with civilization. Poor parental qualifications may be put down as accountable for many. Some are directly due to deficiency of vital force in the child; and some to being of very large size, especially as regards the head. Mal-positions are accountable for not a few. The use, or rather misuse, of ergot causes many. The forceps are sometimes blamable. I fear that excessive compression of the head and injury to the neck from traction, through them, are common causes of death.

It is not to be doubted that the number of cases of still-birth might be lessened. Many a child could be saved by a little intelligent attention. Artificial respiration, skillfully and patiently practiced, may be productive of astonishing results. I speak from experience. Sometimes all that is wanting to start the vital machinery of the body is a dash of cold water. Of course, intelligent care should be exercised to avoid robbing the unborn child of life in any of the ways referred to above.

In conclusion, I may remark, that in mortality returns it is simply absurd to put down "still-born" as a cause of death. It is never a cause. In every instance the cause, or probable cause, of the still-birth should be stated. One might not expect to get the real cause in every instance; but it would be a very good thing to exact one. A strong practical reason in favor of so doing may be stated, to wit: that the term still-born could not be so conveniently used as a cloak to crime.

PLASTER SPLINTS IN TREATMENT OF FRACTURES.*

BY C. B. NEWTON, M. D.,
Of Stafford Springs, Conn.

It will be admitted that the principles of the treatment of the fractures are very plain, but their application often taxes our greatest ingenuity. Says John Hunter, one of the greatest surgeons of the last century: "The setting of a bone is to place the parts in a proper position by art; that is, as near their natural position as possible, and to keep them so."

Says a very eminent surgeon, "If I were called on to testify under oath what branch of surgery I regarded as the most trying and difficult to practice successfully and creditably, I should assert it was that which relates to this subject." He says further: "A crooked limb rendered so by injudicious treatment is an unpleasant sight to a sensitive surgeon, reminding him constantly of his bad luck, his want of skill, or his inattention; not unfrequently it is a standing, living, and speaking monument of his disgrace, planned by his own mind and erected by his own hands."

This language has filled the mind of many a student with alarm and dread, but it is fitting that he should know what he is to encounter, that he may be the better prepared to treat them successfully. It is very seldom that we find a case of fracture which cannot be reduced to its normal position, especially under the relaxing effect of ether. The general outline and length is easily attained by extension, the lateral displacement by pressure with the fingers. Anæsthesia allows us to use the necessary force without torture to the patient. Also we have the limb of the opposite side to guide us in adjusting the fractured one. The limbs of either extremity are far from straight, the thigh and leg are somewhat concave upon their inner aspect, and slightly the reverse upon the outer. We find a corresponding divergence of the arm from a straight line. This precludes the use of a straight splint unless a short one, which cannot be depended upon; and right here let me say that I know of no more important rule than this, that a splint should extend sufficiently to hold the joints next above and below immovable. If the joint moves, the muscles and probably the fractured ends may also: then follow displacement and deformity. There should be no immobility of the joints and muscles, if we would get the best results. Opium is a sovereign remedy for muscular contraction, which must be guarded against. But these are not the principal difficulties. After the limb is set, what shall we use to keep the limb immovable? If an oblique fracture, there is a constant tendency of the ends to slide by each other, and a tilting of one or other of the broken ends, and deformity. There are two principal means. The first is a splint which shall be an accurate cast of the limb, one which will fit the part as perfectly as the skin itself, and this is best obtained by the calcined plaster splint. If well applied, there can hardly be any lateral displacement, for their accurate and smooth surfaces oppose it and the tendency to it. We have another means which may be needful if the tendency to shortening is very great; that is, of course, counter-extension.

Another condition is absolute rest of the limb until the leg can be lifted up from its cast by the foot, or the arm by the hand without its bending in the least. The splint is made by taking a piece of cotton-cloth, doubled, cut it of suitable length, and of a width of nearly one-half the circumference of the limb. Wet the cloth to prevent too rapid hardening of the plaster; open the cloth, and upon one-half of its surface spread the plaster (wetted up as thin as it can be without its running upon the cloth), one-half inch in thickness, the other half of the cloth brought over this at once, leaving a narrow, free edge to be turned under and moulded to the fractured part, which is previously set. If the leg, the posterior mould is to be applied first, and use the double-inclined plane of the ordinary sort with foot piece and under cross-piece to prevent rocking on the firm bed. In the trough of the leg-piece the mould is laid long enough below to include the heel and posterior part of foot; upon this a layer of cotton-batting, and the leg placed upon it the sides brought up while plastic, and held by cloth first laid under the mould. The heel should be well pressed down into the depression made for it in the plane. The anterior splint is prepared in the same way afterwards. Extending from knee half way up the foot, two splints only are used, and their edges about one-third of an inch apart. The interspace allows of tightening the bandage as the swelling subsides, which is passed around the frame-work and mould. Plaster bandage is not so much under control as respects the swelling or its diminution. No "natural bone-setter," with his gouge and knife, can whittle out a splint of wood to equal this in accurate adaptation, though a hand-made splint, with regard to conformation of the part, is

*Read before the Eastern Hampden Medical Association.

far better than the straight wooden ones which have been sold through the country. At the end of a month, gentlest passive motion of the joints should be given to prevent anchylosis.

The cause of deformity in a large number of cases comes of taking off the splints too early. Eight weeks is not too long keeping the limb motionless, save the passive motion which must be given by the surgeon himself. The first deposit has not the firmness of bone which is deposited later, and will not bear the strain of slightest usage without bending. Bony and firm union, it is stated, is not complete until three or four months. I encase the limb after the removal of the casts in starch bandages and pasteboard, allowing free motion of the joints. They are very light and very firm, and clothing can be worn over them; they give protection, are not in the least troublesome to the patient, and should be worn until union is fully completed. Especially is this necessary in fractures of children, who are more apt to take risks. After this manner many of the deformities resulting from too early taking off of splints may be avoided. I know of no result more gratifying to the surgeon than to find, at the last removal of the splints, a perfectly natural appearance of the limb at so late a day, that we can feel assured it will remain so.

Let me emphasize the importance of this later treatment. At the end of six weeks, on giving the limb passive motion, we find the fracture beginning to be firm and in good apposition and outline, the patient is confident that he has a good arm or leg, he asks for greater freedom: in an evil moment you tell him he can use it a little. From that time he will be apt to use it too much, and at the end of second month you have the mortification of seeing a deformity, not that of shortening, but a curvature. If an arm, he has lifted too heavy; if the leg, he has thrown his weight upon it and walked unassisted, and what we had so well accomplished has been destroyed, and if your patient and his friends have ingratitude and cussedness enough, you may hear of threatened prosecution for damages. At any rate, we suffer loss of reputation, and the patient a loss of the full use of his limb.

We rather must say, "No, sir; you must wear your splints another month, and do not use your arm, but continue to carry it in its rest as before." Or, "Don't throw any weight on your leg, but use a crutch;" and tell him of the danger of deformity if he does not heed the advice. I know of no cases requiring plain language more than these, and an intelligent patient will see the wisdom of it.

Ahl's felt splint, made in Philadelphia, is a very firm and adaptable splint, first immersed in hot water, and moulded to the part, then hardened with cold water. Also there is a similar one manufactured by Pietrie, of New York, the latter best worked with dry heat. I have used both with the plaster made of the consistence of cold molasses, after placing the fractured ends in good position and outline, and having cut and fitted it as close as the substance will allow (often to the arm of another person of same size and length).

Pour along the hollow of the splint the plaster, enough to fill all the depressions of surface of the limb, over this a layer of cotton-batting, of width and length of splint, press it down firmly to its place, hold still a few minutes till the plaster has set, then the opposite one in same manner. Now the plaster is hard and the splints are rigid, and we have the most accurate cast of the part possible. There should be a slight intervening space between the splints, which are held snugly to the limb by the common bandage, slackened or tightened, according to the swelling. The advantage of this method over the plastic bandage is, there is no cutting open to be done, it is more cleanly, with accuracy of fit and perfect control. Increase of transverse diameter, and shortening by the ends sliding by, is less likely to happen. They are as unyielding as the bone, and as smooth as the skin. I do not remember to have seen a description of plaster being used in either of these ways; but I have used it in this manner quite a number of years, and with results so satisfactory that I shall be slow to change it.

Paper makes a good pattern, laying on the limb and cutting its edges till the width and length are right; lay the paper on the material, and cut it while hot. I have used the plaster alone in fracture of patella with best results. With leg raised and extended, co-apt the fragments, which are best held in position while the plaster is setting by broad and long pieces of adhesive plaster laid over the patella and across the leg with only the middle of the plaster moistened, the free ends held by assistants, drawing downwards the upper fragment and upwards the lower one; also draw and press upon the middle of the patella, so that fragments will not tilt up, as they are approximated and held there. Then lay on the plaster folded in moistened cloth, with free edges turned under. Plaster should be an inch in thickness over the bone and thinner at the edges, and extend three inches

above and below the knee, and two inches posteriorly from its inner and outer edges. A figure-of-eight bandage is now applied tightly before the plaster sets, so that it shall press the plaster down into the depressions above and below the patella, as well as at the sides. Of course, the straight posterior splint must be used and no flexion allowed in less than three months. Salt can be used to harden the plaster rapidly. Use the best dissolved glue to make it firmer, though it hardens much slower. Sometimes swelling, which rapidly follows fracture from effusion of serum and blood, will delay the use of casts for a few days. In such case, the fractured limb can be placed in a trough with bran packed along the sides to keep it steady; this will allow of friction with liniments or other applications, until ready to be secured by permanent support.

REFLECTIONS AND SKETCHES OF TOWN AND COUNTRY PRACTICE.

BY GEORGE HILL, M. D.,
Of Hughesville, Pa.

(*Concluded from page* 391.)

The sordes in this and other diseases has always been with me a symptom of importance, indicating, as it does, great impoverishment and often rapid reduction in weight. That is, the man goes down at 160 pounds or more, and gets up at 130 or less. And I am surprised to find so little in authors concerning this sordes, they often barely mentioning that it occurs. I do not except Liebermeister, whose systematic work and large experience has probably done more to mould in this country the treatment of *typhoid fever* than any other recent author on either side of the sea. What is it? And where does it come from? Are the lungs performing a vicarious work in throwing it off in expiration as *debris* of the wasting fat, to accumulate by accretion upon the perfectly dry tongue, lips, and teeth? Who knows?

This disease is called a fever *per se*—an *idiomatic cobweb* that should be brushed away, as there is no such thing as fever *per se*. Fever, pain, and vertigo are at best secondary; and the first-named never appears earlier than third or fourth in the series of disturbances in any disease. Any of these symptoms, and others, of course, may assume a prominence that shall require immediate attention, even before the cause, primary or remote, or lesion, temporary or more or less fixed, can be antagonized.

Fever is simply *a name* for the accumulation of heat by abnormal friction in the vital tissues, and no more entitled to be termed the *disease*, than that tenesmus should be the name for what is called dysentery. And in this sense only should fever ever be regarded as a *cause* secondarily involving collateral consequences.

My first special attention to the merits of fever as a factor in disease was aroused in a case of complicated rheumatism, in a soldier just returned from the Mexican war. One morning on my visit to see him, I discovered at the post the fat horse and carriage of my quondam friend, root-doctor Y. He was kind enough to meet me at the gate, and in a most pleasant and patronizing mood, said:

"*I hope you will not be offended, as I have a plan by which we can both attend.*"

How?

"*Why, you go right straight on, and doctor him for the fever, and I will doctor him for the rheumatiz.*"

Thanks; you can take care of the *rheumatiz*, and the fever will take care of itself.

Typhoid fever is generally more or less gradual in its approaches. The remote cause, a parasite; the immediate, a lesion, acquiring, after a time, a grade of inflammatory action more or less intense. Therefore, I sometimes bleed early in the disease, and when the patient is plethoric, or where there is severe pain in the head, and, of course, while the blood is yet capable in its coagulation of giving a fair exhibit of the inflammatory buff, ten grains of calomel, more or less, followed by glycerine and castor oil, in equal or unequal quantities, and to which is added a drachm, more or less, of spirits of turpentine; these ingredients to be warmed and shaken until the spirits of turpentine is entirely broken up, and then given. This is followed up every second day, or oftener, during the first stage of the disease, and, together with quinine, constitutes the *anti-parasitic treatment*. Throughout the first stage of the disease there are always slight chills daily, to antagonize which, twenty to sixty grains of quinine are given in doses of one or two grains every two or three hours until all chilliness disappears. Then this drug is entirely discontinued. Quinine given in small or moderate doses, and well directed, is harmless. But given largely, it is a brain disturber—often more or less serious and permanent. In doses of ten to twenty grains its effects are reflex, and by absorption are seen especially in intermittent fever. Here no amount of caution can prevent the erectile tissue of the sweat glands and their spiral ducts from taking on spasm and producing what is commonly called *goose-skin* or the *shakes;* and when this is spread over 1,400

square inches or more of surface, it is not surprising that congestion and lesions occur sufficient to set up the excitement, which means fever.

It is the unvarying effects of this drug in chills and fever which has led me to believe that if ever the *marsh microbe* is found, it will be in the sweat-glands and their ducts.

After the dry tongue and sordes appear, the treatment consists of digitalis and ipecac; the first while the pulse has sufficient resistance, the latter throughout, and often up to the verge of nausea. Also calomel in half-grain doses, more or less, with opium to counteract diarrhœa; and an emulsion composed of gum arabic, glycerine, and spirits of turpentine, so that ten drops of the latter may be given two or three times a day, to prevent meteorism, etc.; and sometimes a jug of hot water to the feet and pounded ice in bladders to the head. And in order to insure the gradual and certain radiation of internal heat, tepid water, to which is added a little glycerine and a pinch of common salt, is used. The body and limbs are gently sponged in imitation of perspiration, as better results are obtained in this manner upon even a partially-relaxed surface than by *cold sponging*, *the cold pack*, or *the cold bath;* these latter causing constriction of the surface, in short chills, *secundum artem!* which every one ought to know is the worst condition the surface of the body can be placed in for the radiation of internal heat, in fact, causing its accumulation as revealed by actual experience—the clinical thermometer in the rectum registering as high or higher after than before the process, to say nothing of other evils growing out of the multiplied shocks. This is greatly at variance with modern authors, especially the Germans, who, however, are much to be lauded for their untiring zeal and systematic work.

The diet in bad cases is nil, for the reason that not a single function in the whole process of digestion can be performed. Hence new complications are set up by any sort of food. The patient in such cases is only allowed water or gum-arabic water flavored, with good tea or coffee, warm, tepid, or cold. The *starvation theory* is not here advocated. But, vox naturæ, vox Dei est. Want of appetite and apathy for food are a part of that voice, the vibrations of which are recognized throughout all animated creation. And whatever man may have gained or lost by evolution, these instincts remain to assert rights which we are bound to respect. Also what is said of food may be said with greater force of drugs that are never prescribed without an irresistible indication. And whatever else may be required of the physician, these three things are indispensable: *Nothing* with good words, the LANCET, and the hypodermic syringe. And often the best of these three, is *nothing*.

Nine cases have been treated during a part of the last three months. All have recovered, except the first-mentioned case. None became fairly convalescent in less than three weeks. Several never presented sordes. And the only reason for not insisting that these eight cases of *typhoid fever* were in a very great measure aborted by treatment, is that it is still fashionable to say that this disease is *self-limited*, which is only a sly way of asserting that we know a thing very well, that we do not know at all.

Hospital Reports.

PHILADELPHIA CITY HOSPITAL.

CLINIC OF EDWARD T. BRUEN, M. D.,

Physician to the Hospital and Assistant Professor of Physical Diagnosis in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M. D.

Pneumothorax.

GENTLEMEN: The case which I bring before you this morning is one of great interest, and will afford an opportunity of demonstrating a physical sign which is very characteristic, and which is particularly significant of the disease with which this patient is suffering.

The man, thirty-six years of age, was admitted to the hospital one month ago. At that time, the only evidences of disease were an area of impaired resonance in the inferior lateral aspect of the left side of the chest, together with distant respiration and a few superficial crackling rales. Over the upper part of the left lung the breathing was feeble, but otherwise natural. The right side was healthy. The patient was walking about, and did not appear to be very sick. In about a week, he was remanded to the chronic ward. I mention these points, as he is now gravely sick, to show you that we did not consider him seriously ill when first admitted.

About one week ago he complained of feeling very sick, and the temperature went up to 103°, and for several days it fluctuated between 103° and 100°. He had no sweats and no chilly feelings, but simply the rise in temperature, which was somewhat of a hectic type. With this there was more cough than there had been, and a good deal of expectoration, which came up as chunks of yellow mucus. There was also some pain in the left chest, and a little dyspnœa, but this was very slight.

Inspecting the chest as the patient lies upon the table, it can be distinctly seen that the movement of the right side is exaggerated, and not only so, but that this side is more distended than the left side. On the left side there is very little

respiratory movement, and in addition it seems to be retracted. Observing the left chest more closely, we see that such movement as is present is due to the movements of the diaphragm.

On auscultation, there is found all over the right chest exaggerated respiratory murmur. On the left side very little respiratory murmur can be heard, there being simply a blowing sound in inspiration. Connected with this, there is a clear metallic tinkling sound, similar to that produced by dropping a coin into a basin. I shall presently allude to the importance of this sign. It is audible all over the lower zone of the chest anteriorly; in the axilla and also over the lower portion of the chest posteriorly. Studying the respiratory action a little further, there is found about three inches from the left border of the sternum an area of bronchial breathing, with a few crackling rales. This area is about the width of the finger. Over the scapular region of the left chest, posteriorly, there is also heard bronchial breathing. The heart-sounds are not very distinct.

Even those of you who have more experience in physical diagnosis would find the further study of this case rather difficult. Percussion on the left side of chest gives a low pitched tympanitic sound. It is full and clear, and very much like the resonance developed over an emphysematous lung. It closely resembles vesiculotympanitic resonance. On the right side there is exaggerated resonance. It would take a well-trained ear to recognize the difference between the exaggerated resonance on the right side, and the tympanitic resonance of the left side. This latter resonance is of lower pitch than the tympany of the stomach, and also lower than that of the vesiculo-tympanitic resonance. This sound so closely resembles the normal resonance that I should have considerable hesitation in making a diagnosis from it alone. If, however, I take two silver dollars, or other pieces of metal, and have an assistant use one of these as a plexor and the other as a pleximeter, while I listen with a stethoscope, I hear a distinct tinkling sound, very clear and resonant, and entirely different from the dull resonance produced when the dollars are struck in the open air, and this latter physical sign has special diagnostic importance.

The physical signs which I have mentioned indicate the condition known as pneumothorax. The pleural cavity, which, by the way, is not a cavity normally, is filled with air, and the lung is compressed.

How does the air enter the pleural space? How did it get there in this instance? What has the air to do with the physical signs? There are several ways in which the air can enter the pleural cavity. The most common is in the process of phthisis, where ulceration of the visceral pleura takes place, and a perforation of the vesicular substance allows the air to pass from the lung to the pleural cavity. There is a good reason why this is not a common occurrence. Usually in phthisis, especially in the more chronic forms, the pulmonary and costal pleura become adherent through chronic inflammatory processes, thus preventing this accident. If this union has not taken place, and the lung tissues are weakened by the inflammatory process, they may yield in a fit of coughing, and the pleural membrane give way. Sometimes there is a direct ulceration through a cavity without extensive involvement of the lung. If a person suffering with phthisis, under the above conditions, attempts to carry a heavy weight up-stairs, or in any way putting a sudden excessive strain on the air within the chest, may cause a rupture. Pneumothorax then usually occurs from rupture of the visceral layer covering a cavity, or sometimes from softening and ulceration along the border of the lung, yielding to tension.

Next in frequency, pneumothorax occurs from the introduction of air from without. In the process of tapping the chest, air is sometimes allowed to enter, and the same thing often happens in fractures of the ribs from perforation of the visceral pleura. Occasionally the pleura is opened by processes in adjacent structures. Abscess of the liver may open by ulceration of the diaphragm and its pleura, and by perforation of the visceral pleura lead to pneumothorax. Sometimes it results from disease in the œsophagus. Its most frequent association is, however, with phthisis: but I have reasons for thinking that such is not the case in this instance. This patient does not seem to have been suffering with phthisis. When I examined him on admisssion, I thought that the chronic pleural adhesions were the only lesions; therefore this case probably belongs to the class which is sometimes described under the name of idiopathic pneumothorax, in which the condition takes place without a recognizable cause. I would explain this case in the following way. The adhesions of the lung to the chest have been followed by inflammatory changes in the lung abutting the pleura. This chronic inflammation has caused softening of the tissue of the lung along the border of the pleura, so that the lung being fastened to the thoracic walls, and its tissue being softened, a cough or a strain may produce rupture of the visceral pleura with the escape of air. I have the additional reason for this explanation, though the lung is confined doubtless by pleural adhesions in the region over which I hear bronchial breathing, that is, near the sternal border in front, and over the scapular region behind. Over this region, none of this tinkling on percussion which I regard as so diagnostic is heard. At the same time we have a reserve diagnosis, and that is that there may have been a certain amount of phthisis in the patient's case. So much for the condition. Let us now turn to the explanation of the physical signs.

First, in regard to the metallic tinkling heard on auscultation. It is important in these cases to settle one thing, and that is whether or not there is any communication between the lung and the pleural cavity. When the metallic tinkling disappears, you may infer that the opening has been closed. The opening from the lung is apt to be valve-like, permitting the entrance of air from the lung, but preventing its egress. Consequently the air accumulates in the pleural cavity and remains there. The air passing in with a jet, disturbs, I suppose, the relations of the fluid in the pleural cavity, developing a splash and gives rise to the tinkling. The moment the opening in the visceral pleura closes, the tinkling ceases. You will at once say no reference has

been made to fluid in the pleural space: how does it occur? The moment that air passes in from without, certain germ organisms or septic matters pass in, and the presence of these creates irritation of the pleural membrane, resulting in pleurisy and effusion of liquid. Air itself is not a damaging agent; the pleural space may contain considerable aseptic air, which will be absorbed without causing any trouble. If, however, the air contains organisms, pleurisy is produced, causing hydro-pneumothorax. If the fluid becomes purulent, it constitutes pyo-pneumothorax.

Now, in regard to the tinkling heard on percussion with metals, I presume it is due to the transmission of an impulse of air through a large cavity with thin walls, containing air. As a practical fact, in all my experience in physical diagnosis I have never found this metallic tinkling in percussion present in any other condition than pneumothorax. I have never found it in phthisis with a cavity, and the only condition in which I could conceive of it being present would be where an entire lobe was converted into a cavity, for there the condition would bear some resemblance to that found in pneumothorax. This is, however, a condition so rare that I have never met with it. I think that this is a pathognomonic sign of pneumothorax, and it is about the only pathognomonic physical sign that I know of. The metallic tinkling is also dependent on the presence of an opening between the pleural cavity and the outside air. If the air is imprisoned in a sac, this tinkling is not so well developed as when there is a patulous opening in the pulmonary pleura, and a free opening in the intercostal space also reduces the clearness of the percussion note. The value of the metallic tinkle on auscultation is not so high, since it can be heard over large pulmonary cavities or over large or dilated bronchial tubes when there is an accumulation of mucus. In pneumothorax, however, the metallic tinkle ceases if the communication with the external air is cut off. These two signs, then, not only have an important application in the diagnosis of the condition, but they also afford a means of determining the presence or absence of an opening between the lung and pleural space.

What is the reason that there has not been more dyspnœa? We should expect marked dyspnœa with pneumothorax. As a matter of fact, dyspnœa is present just in proportion to the acute development of the affection. In the present case, I think that the pneumothorax has developed in a localized segment of the pleural cavity, the balance of the chest being occupied by the lung. This is a sacculated pneumothorax, and is similar to a sacculated pleural effusion. The patient has, therefore, all of the right lung and a portion of the left with which to breathe. As I have said, pneumothorax is quite a frequent accident in phthisis. In this disease, the needs of the system for air having been reduced, dyspnœa may not be marked. The cases in which marked dyspnœa occurs are those in which there is little disease of the lung at the time that perforation takes place. In some of these cases, the dyspnœa is sufficient to render the patient cyanosed. This condition follows the slighter forms of disease where there is a large portion of the healthy lung compressed. In this instance the adhesions have prevented complete compression of the lung.

With the physical signs which I have mentioned there is another which is a very crude but old sign, being known to Hippocrates, who recognized the presence of fluid in the pleural chest by taking the patient and shaking him, in the same way as you would shake a bottle to determine whether or not it contained liquid. By this process you develop in the patient's chest a succussion or splash—a vibration of the fluid which is audible. This is present in this case.

The next question is, What shall be done for a patient under such circumstances? If the pneumothorax occurred in a patient with advanced phthisis, I should let it alone, because if the chest is tapped and the fluid withdrawn the patient is exposed to the dangers of excessive suppuration. The principle involved is practically the same as guides us in the treatment of cold abscess. You aspirate, if the patient's strength is sufficient to stand the drain. If the patient's condition is good, the case should be treated as one of empyema by opening and putting in a drainage-tube and thoroughly draining this abscess as it really is. As soon as you are certain that there is purulent fluid, open the chest and drain it. By so doing, you hope that the valve-like opening will close, and that after a time the cavity will heal. Sometimes the opening in the lung heals, and then you have a condition similar to sacculated pleurisy, and probably with pus, so that it is desirable to tap even if you know that the opening may heal possibly if the case is left to itself. In the present instance, I have not yet tapped, because I wanted to be sure that the fluid which is present is purulent. If there is only serous effusion, I would rather wait and let the opening close if it would, and have the fluid absorbed by the ordinary processes. We determine the presence of pus chiefly by the existence of hectic. If there were chill, sweats and temperature of a hectic type, I should consider it proper to at once proceed with the operation. I expect the formation of pus, and as soon as I think that it is formed I shall insert the tube of the aspirator and draw off a little of the fluid for examination. If it is found to be pus, a drainage-tube will be inserted. The easiest way of doing this is by passing the tube through the canula of a trocar. If this does not give sufficient drainage, it will be necessary to cut down on the chest, making a free opening into the pleural cavity and introducing a large drainage tube. If this were sufficient, I should stop there, but if the drainage were not sufficient, that is if the flow of pus continued abundant, if it did not present the character of laudable pus, or if it was deficient, it would be proper to use certain injections. These should be made with two objects. In the first place, to cleanse the cavity, destroy germ life and keep the pus pure. For this purpose a weak solution of bichloride of mercury may be employed. In the second place, injections are used for the purpose of stimulation, for which there is nothing better than a weak solution of iodine. Lugol's solution diluted to about a sherry color, and gradually increased in strength, may be employed on general principles. As you find the pus becoming more and more healthy, you judge that the proper amount of stimulation is being

effected. In regard to the strength of these injections no arbitrary rules can be given, but you must be guided entirely by the effects.

Finally, if none of the methods of treatment secure the desired result, that is, the closure of this cavity and the adhesion of the granulations, then it is proper to remove a certain number of ribs. This permits the outside wall of the cavity to close down on the inside wall; that is to say, the ribs often form a stiff, unyielding wall, and the lung is often so bound down by adhesions, that it is difficult to conceive of the abscess space closing. Nature provides for healing in the following manner: the diaphragm ascends, while the adhesions draw the lung down. The granulations on the visceral pleura, as it were, catch on to the granulations on the costal pleura, so that little by little the lung edges down while the diaphragm creeps up. The external resistance is, however, present. This may be overcome by removing some of the ribs, and thus permitting the other soft parts to be approximated Portions of nine ribs have been removed. Dr. White and myself have treated four or five cases of empyema in this manner.

This treatment requires time, and as you see the measures necessary are serious; and you can now readily understand why it would not be advisable to enter upon this treatment where there was extensive phthisis.

March 18. You will observe that a drainage-tube has been introduced in the above case, since he was last before you; the pus is flowing out freely, and the case is progressing favorably.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(*Continued from page* 398.)

There is a smaller class of phthisical patients where a more humid air is not only more grateful, but also more beneficial. To this class belong those patients having a highly sensitive nervous system, and those who are sometimes yet in the second, but more frequently in the third or last stage of the affection. A resort having a profusion of forest growth, not less than from sixty to eighty per cent., at some well-sheltered spot at low elevation in a warm or temperate climate would meet the requirements of the present group of sufferers. They are usually far advanced as regards the local lesions, and having a disease of mortal character, it would be far better, if convenient, to send them to the nearest retreat of this kind, than to advise a change to some distant resort of note, or, as is but too frequently the case, recommend the almost cruel practice of expatriation, with all its attendant inconveniences.

No attempt is here made to distinguish between all of the various forms of consumption of the lungs, and to indicate the particular resort required for their climatic treatment; on the contrary, the object is to simply sketch a general outline of the subject. Besides being useful to consumptives, the forest air, it is stated by Dr. Oswald,* relieves scirrhous affections of the skin. The same author quotes Dr. Boehm, who has observed that "ophthalmia and leprosy, which have become hereditary diseases, not only in the valley of the Nile, but in the table lands of Barca and Tripoli, are utterly unknown in the well-timbered valley of Abyssinia, though the Abyssinians live more than a hundred geographical miles nearer to the equator than their afflicted neighbors."

Since our public squares may be looked upon as forests of reduced size, it is desired to call brief attention to their effects upon the air of cities. It must be confessed that nowhere could trees and ornamental shrubbery prove their virtues to greater advantage to the public health than by improving the conditions of a vitiated city atmosphere. As in the case of forests, the action of public grounds must needs be of a local character; hence it is quite obvious that in large cities quite a number of squares of the size of those in Philadelphia, would be needed to produce the desired effect. The conclusions respecting the influence of forests upon local climate apply, with few exceptions of little importance, in the present instance. For obvious reasons, their effect in mitigating extremes of temperature, by checking the force of wind currents here, is almost negative; but the trees, by causing refreshing shade and transpiring aqueous vapor, have a delightful cooling effect, thus tending to moderate the oppressive midsummer heat of our large cities. Along with the moist vapors constantly emitted there are also other health-giving principles evolved, and among them ozone is, perhaps, the most important. Since only the flower and odoriferous foliage are ozone generating, the vegetation of these public parks should be selected with due regard to this fact. The same percentage of the total area should be assigned for retreats of this kind, as was indicated when speaking of the proper ratio of woodland for ordinary sanitary purposes, viz., twenty five. But what city can boast of such a percentage of forest area? This would also be manifestly impossible in those portions of older cities already densely built up; but even here a nearer approach to the proper standard might be attained by the general planting of trees on either side of our thoroughfares. This latter suggestion, if carried out, would have the effect of improving the air of our streets—which is really the air we breathe—and thus by means of free ventilation a purer and wholesomer atmosphere would be admitted into our dwellings.

It is quite evident, that by providing sufficient reservations of this sort a perfect boon would be conferred upon that large element of our population, the humbler classes, who, for financial reasons, are unable to make a change of residence during the heated term. Again, such squares form a convenient substitute for a more complete change of air, in the cases of that large class of little patients suffering from infantile diseases of summer.

Who can question but that the lives savable by the maintenance of a sufficient number of these public parks could be counted by tens of thousands? For in all medical knowledge there is no fact better established than that the usual summer ailments of infants can be most successfully treated by a change of air. Than the subject of open squares and their keeping up under

*Pop. Sci. Monthly, August, 1877.

proper regulations, there is none more important, inviting the attention of our municipal law makers, and it is no exaggeration to say that any improvements they might make in this regard would be rewarded by a realizing sense of having done the greatest good to the greatest number.

DISCUSSION ON SANITARY INFLUENCES OF FOREST GROWTH.

Dr. Joseph G. Richardson said: "I have been much interested in hearing this subject, as presented by Dr. Anders. Few persons realize how much we owe to forests. Our existence itself is dependent on plants, for without their action in absorbing deleterious carbonic acid, and giving off oxygen, we would find ourselves sorely in need of this latter aerial constituent. Not only would death result from their total absence, but a reduction of plant life must affect health in various degrees. The reduction of the area of forests becomes therefore a question of great importance, from a sanitary point of view. We can readily see an illustration of this in the familiar aquarium. If there is an insufficient supply of plant-growth in these collections, the fish die. In the same way, the developed amphibioxi would die, if the plants supplied by nature were insufficient to purify the air for us.

"There are several points in the paper worthy of special mention. Dr. Anders spoke of the mechanical influence of forest belts on malaria being still *sub judice*. Believing, as I do, in the germ theory of this disease, I think the mechanical explanation of this influence is the correct one. Ozone, in quantities usually found in the atmosphere, cannot kill germs. Dr. Nicholson's investigations on this subject are still being carried on, and we can therefore expect further contributions to this subject.

"In reference to the regulation of the supply of moisture by forests, it is true that the roots are influential in drawing moisture up from great depths. This is the great advantage of forest growths; because, by the comparatively regular supply of moisture to the atmosphere, the climate is rendered more equable. This becomes of immense value in phthisis, especially when we consider the influence of great changes of humidity in this disease. Considering the vast prevalence of this disease, it becomes our duty to search out and control any obstacle to its successful management.

"The difference of plant influence on humidity, due to different investments, is of great importance. I have not, however, myself seen any advantage from the pine in phthisis, though it is conceded to exist; and I would like to hear the experience of any of those present on this subject. The idea of advantages due to dryness and altitude would perhaps be more useful if definite stages of the disease adapted to these conditions were noted. The dry climate seems best in the early stages, while the latter stages are better in a more humid atmosphere. I was glad to hear the plea for the squares in cities. Their value, especially to the poorer members of the population, is inestimable."

Dr. Henry Leffmann: "I am pleased to see this topic brought before the medical profession. The question of forest destruction has been attracting much attention in this State. The State Board of Agriculture has had several elaborate reports presented to it, during the past year or so, and the efforts of the medical profession will be a valuable assistance to the efforts made by that Board. The traveler who journeys through the mountainous regions of Pennsylvania, and sees from the car-windows the ruthless destruction of the forests, without any effort to restore them, can realize how soon the Commonwealth will be seriously at the mercy of the unfavorable conditions which result from treeless hillsides. In our own city we have a serious indirect unsanitary result, in that Schuylkill water is rendered frequently turbid by the freshets, which now replace the graduated flow of earlier years."

Dr. Shakespeare: "I have been greatly interested in the important paper read this evening, and also wish to express my gratification that this subject has been brought before the Society. One or two points struck me as perhaps leaning too much to one side of some of the questions involved, but which are yet far from settled. The views expressed by the reader on the relation of forest growth to the prevalence and virulence of malarial poison, appear to be in conflict with those recently expressed by one of Italy's most celebrated physicians at the Copenhagen Congress. My general recollection of the paper that was reported as read there by Tommasi-Crudéli, is that it contained directly opposite views, based on a study of the eucalyptus trees and the forests around the Roman Campagna. I am prompted to speak of this portion of the paper also from the fact that the general deductions do not agree with a limited experience I myself have had, both with reference to the influence upon climate and upon the existence of malaria, of the denudation of large forest areas. When I was a boy, twenty years ago, the central portion of the Maryland and Delaware peninsula, of which I can speak from personal observation, presented a forest ratio of fifty to seventy per cent. of the whole. The winters were then far longer and more severe, and the summers shorter and milder than now. Since then there has been a complete revolution in this matter. It is now a rare thing in that country to find sleighing or skating last longer than a few days, instead of months as formerly, and the summers are longer and warmer. During this climatic change, the forests have been leveled and the lands drained. The forest area has been reduced to twenty or twenty-five per cent. There has been a corresponding lessening of malaria in both prevalence and virulence. Regions that were before almost uninhabitable have become comparatively free from malaria, and where once the malignant forms prevailed, now only the lighter types are found.

"As bearing on Dr. Richardson's statement of the purifying effect of extensive forests on the air, and the deleterious effect of their destruction on the inhabitants, an inquiry might profitably be directed to a comparison of the vital statistics of France before the Revolution, with those obtained since the extensive destruction of forests which followed that period.

"With regard to the relation of forest destruction to the sanitary conditions of climate of particular localities, it might be pertinent to ask, if

the cutting down of the trees of this city and the surrounding country, and the lessening of the park area, would not sensibly lessen the aerial moisture here, thus lessening one of the attributed causes of the unfavorable effect of this climate on the prevalence and course of consumption?"

Dr. Richardson: "In connection with Dr. Shakespeare's remarks on the effect of felling forests upon malaria, the experience of the valley of the Connecticut is interesting. Fourteen years ago, malaria appeared on the southern border of the State, and advanced northward at the rate of fifteen or twenty miles a year. There was no change in the forest-covered ratio in this time. It would seem that the conditions essential to the progress of the malarial poison is not necessarily dependent on forests. Probably the element of drainage is of importance."

Dr. W. S. Forbes: "I wish to call attention to some historical facts bearing on this subject. From Charlemagne to Louis XVI., primogeniture prevailed in France. Under this condition of things large tracts of land were devoted to forests, for purposes of pleasure. Under the decree of the 10th Brumaire, the lands of the emigrant nobles were confiscated. These fell into the hands of the reigning powers, were divided up and sold, and the immense tracts of forest land turned into fields and vineyards. From that day to this, the peasant ownership, which seems impending in England, has grown with an unrestricted power of sale. Especially has this destruction of forests taken place in Provence, until twenty-five years ago so great had the evil become as to call for legislative interference. The government seized tracts of land, by right of eminent domain, and forests have been replanted. The reasons were not sanitary, but commercial: the drying up of streams and aridity of soil. On the contrary, in the northern part of France a similar course was pursued for a different purpose. That noble forest of Ardennes, or the Black Forest, which has existed since the days of Tacitus, was being desecrated and laid waste by railroads. The people complained effectually, but from hygienic reasons.

"This question of the conservation of forests has been considered by the kings of England from remote times. That laid out by William the Conqueror is to this day known as the New Forest. And this New Forest, once covering a tract of country nearly forty square miles in extent, has engaged the attention of the monarchs and governments of Great Britain from that day to this. It especially engaged the attention of that great minister of King Edward, William of Wickham, he who laid the foundation of the famous school at Winchester, which still flourishes, and that other famous seat of learning at Oxford, called New College.

"Later this New Forest attracted the attention of King Charles I., and from it this monarch constructed the ships of that great fleet, on the power of which his minister Seldon issued his famous manifesto known as the *Mare Clausum*."

Dr. Lawrence Turnbull: "With regard to the influence of trees upon malaria, it is stated that the late Dr. Dunglison taught, in his lectures on hygiene, the true sanitary value of belts of trees surrounding houses. As to high altitudes: while in the Adirondacks, last summer, I made some observations on the effects of these places on consumptives. Those in the early stages were benefited, but no good effects were produced in late stages. The therapeutical elements were not merely the pine trees, but the altitude, the latter ranging from 1800 to 2000 feet. A medical gentleman seen there had acquired phthisis in early life, had gone there to live, and remains in good health as long as he lives at the high altitude. Whenever he went down into the valley, or to New York city, his old disease returned. I was informed, by a medical gentleman, of a number of instructive cases, at least twelve, where cavities had been cured by going there in the *early* stages, and remaining there during the whole season. Cases seen, that had resorted to the localities later, had not been benefited. The influence of the pines did not seem to be of much value."

Dr. Anders, in closing the discussion, said: "I am pleased to see that the paper has elicited so much discussion. Conclusions on the subjects presented can only be correctly drawn after considering all the elements. To illustrate: at a medium altitude, fifty per cent. of forest growth would cause a slight increase of humidity; but so long as the other beneficial influences alluded to counterbalanced the objections which could be reasonably urged against the slight increase of moisture, their presence would still be advantageous. Pine forests, which I have explained exhale a much smaller amount of moisture, would not be objectionable at high altitudes, as the very slight effect upon the humidity would be more than doubly compensated for by other advantages, more particularly the power pine forests possess of generating ozone. Dr. Richardson has remarked that I did not designate the particular kinds of cases to be benefited by definite proportions of forest growth. The statements made in the paper that patients in the earlier stages of chronic phthisis should be sent to forest resorts at medium altitudes, and those in the later stages to resorts having a larger forest area, at low elevations, seem to meet these views. In regard to the remarks by Dr. Shakespeare, I did not contend for a special action of trees on malarial germs; merely that by placing them between the sources of poison and residences, its convection was arrested. The reason why malarial diseases were less prevalent in the localities referred to by Dr. Shakespeare, is probably to be found in the fact that by the removal of the forest trees, the originating centre or area of the poison was correspondingly decreased."

He also spoke of the reciprocal relations of plants and animals. According to Dumas, if all plants were annihilated, there would be enough oxygen to sustain animal life for more than ten thousand years. Pettenkofer has shown that two dozen plants are required to give off an amount of carbon dioxide at night equal to that exhaled by one baby sleeper.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, February 12, 1885. The President, Dr. Shakespeare, in the chair.

A Case of Cardiac (?) Aneurism.

By Joseph S. Neff.

William N——, colored, aged forty; family record good; no evidence of venereal disease. His previous history shows nothing of importance until two and one-half years ago, when he had acute inflammatory rheumatism. I could not obtain any satisfactory history of endo- or pericardial inflammation at that time. He appeared to make a good recovery, and remained well until one and one-half years ago, when he noticed palpitation of the heart and dyspnœa upon slight exertion, soon followed by cough, which was rather persistent. There was no œdema at this time, at least not sufficient to have attracted his attention. He improved upon rest and some medication received at a dispensary. After this first attack until admission to the Philadelphia Hospital he was enabled to work, although being always susceptible to palpitation and shortness of breathing upon extraordinary exertion, with one exception, which was one of his so-called attacks, and described as "catching cold," which would increase the above-named symptoms to such an extent that he was compelled to remain in the house for several weeks last August. Here. again, there was no sudden exacerbation of the symptoms alluded to.

He was admitted to the medical ward of the hospital on the 25th of November, 1884, at which time he presented the following conditions:

Orthopnœa intense, cough persistent and troublesome, accompanied by hæmoptysis, palpitation of the heart excited by moving in bed, general anasarca, skin on limbs and scrotum cracking in places from distension, deep pitting on pressure even on chest, face and forehead. Bowels constipated, urine scanty, containing $\frac{1}{10}$ of one per cent. of albumen; no casts. Pulse weak and frequent, although the peculiarity known as Corrigan's pulse was distinguishable.

Physical examination revealed marked and peculiar pulsation of the great vessels of the neck. Impulse of heart seen, disseminated over an area of about two inches. Cardiac dullness extended from upper border of third rib on left side of sternum to liver, and horizontally on a line of fifth rib, from $\frac{3}{4}$ inch to the right to $4\frac{1}{2}$ inches to the left of sternum—the apex beat being felt in the seventh interspace ($1\frac{1}{2}$ inches to the left, and $2\frac{1}{2}$ inches below the nipple).

Upon auscultation a loud blowing diastolic murmur was heard, commencing immediately below the aortic valves on a level with third rib, and transmitted downward and toward the left, being quite loud at the ensiform cartilage and apex, with its seat of greatest intensity over the left side of the sternum, on a level with the fourth costal cartilage. This murmur was not transmitted in any other direction. As to its exact time, I would state that it commenced immediately after the first sound, lasting through the second, and continuing almost through the period of rest.

A systolic murmur was also heard at the base of heart, and was transmitted towards both infraclavicular regions, and at times was heard in the carotids. It commenced with the first sound, but did not last through it. It was not heard over the body of the heart. In the region of the apex a third murmur was heard, systolic, which could be clearly separated from the preceding as being less harsh and occurring later in the systole. It was also heard over the left auricle, and as far to the left as the axillary line. Was not audible posteriorly.

Physical examination of the lungs showed a condition of passive congestion. There were no nervous phenomena excepting some slight delirium, lasting for a short time, and due to imperfect aeration of blood.

The diagnosis was undoubted aortic insufficiency, with dilated hypertrophy of left ventricle and some mitral regurgitation. Under treatment improvement commenced at once, and continued until December 11, when he was able to walk around the ward without discomfort. Cough had disappeared, no shortness of breathing or palpitation without undue exertion. Dropsy almost entirely absent. The urine still contained a trace of albumen. Physical signs of the heart were unchanged, save an impulse increased in force. Pulse was 78, strong, and retaining to a marked degree the "trip-hammer" characteristic.

The general condition remained unchanged until December 30, when it was noticed that the œdema was making headway, returning dyspnœa, etc. This gradual increase in severity of symptoms continued, and on January 5 there was considerable hæmoptysis, the physical signs being the same as on admission, excepting dullness and bronchial breathing over both bases of the lungs posteriorly. Patient gradually grew worse, and died on January 19.

Autopsy made by Dr. Shakespeare, the pathologist of the hospital, the notes of which were written by my resident, Dr. Hickman, and are as follows: External appearances; general anasarca, especially of lower extremities, most marked in the left.

Heart.—Pericardial cavity contained some serous fluid, but no evidences of pericarditis. The heart was greatly enlarged, the enlargement being principally in left ventricle.

Right ventricle contained dark clotted blood—the wall being $\frac{1}{4}$ inch in thickness, very firm, and marked post-mortem staining present. Nothing else noteworthy on this side.

Left ventricle was greatly dilated, and the wall much hypertrophied, being fully $\frac{3}{4}$ of an inch thick. The endocardium was intensely stained post-mortem. Ventricular wall was quite soft. The ascending aorta also showed intense post-mortem staining of inner lining, and the latter was in a condition of moderately extensive arteritis.

Coronary arteries appeared normal at their mouths, the right being somewhat dilated and more or less atheromatous. Mitral orifice appeared normal, also the surface of the auricle. The ventricular endocardium presented nothing noteworthy, except post-mortem staining. There were on anterior leaflets of mitral valve at base a few endocardial yellow streaks, running horizontally. At juncture of left cusp of aortic valve with ventricular cusp, there was a mass of cheesy material beneath the endocardium about $\frac{1}{2}$ inch in diameter. The mitral cusp showed a rupture through and into the pocket of the posterior cusp where the two joined; the latter cusp was also perforated in its right third, and there was an aneurismal cavity extending into upper portion

ofs eptum between the ventricles, the apex of the dilatation corresponding to the upper septum of right ventricle, the aneurismal sac showed a dilatation towards left ventricle, and a rupture into the latter by an orifice admitting the end of thumb, the upper border of the opening being formed by the two affected leaflets above-mentioned. There were some vegetations upon under surface of aortic cusp. The aneurism was the size of a walnut, and contained no clots.

Both pleural cavities contained sero-sanious fluid. No adhesions, except in one point at lower lobe. The two lobes are slightly collapsed; they presented no other abnormal appearance, except the existence of two embolic infarcts, one small wedge-shaped, size of a hazelnut, superficial near the inner edge of upper lobe at its anterior surface; pleural surface congested. Another the size of a hen's egg, projecting above the surface at the inner edge of lower and at the outer edge of upper lobe, about two inches from base of lower lobe, at its anterior aspect. The two lobes are adherent at the point of the infarct, and their substance appears to run together. The cut surface showed the infarction to be made up of tissue of both lobes, mainly of lower, and a line of division of the two lobes is quite perceptible. The area of infarct is dark red and granular, sharply outlined. At centre of the pleural surface of this large infarct there was an irregular area of reddish substance. No pleuritic adhesions with chest-wall, corresponding to this infarct, and no decided pleuritis.

The upper lobe of right side contained ten infarcts, the size of a hickory-nut, along its anterior lower edge. Middle lobe one in a similar position. Lower lobe contained four, varying in size. This lung presented nothing else abnormal.

Liver normal in size, flabby, and smooth surface. Nothing else abnormal except some congestion and probable increase of fibrous tissue, it being extremely difficult to push the finger in the cut surface.

Spleen normal in size, pulpy, dark brown in color, with slightly increased thickness of the capsule.

The kidneys were normal in size, and presented no marked unhealthy appearance, these organs being so stained post-mortem to make it impossible to judge of their condition. Amount of cortex appears normal.

The pathological change seemed to originate at the sinus of Valsalva and penetrate into the septum, then causing a bulging of the two affected aortic leaflets, making a valvular aneurism (secondary), which ruptured into left ventricle. Clinically, these cases are of little value, as none have been diagnosed, other than valvular disease. It seems quite remarkable, however, that there was no sudden onset of symptoms to mark the rupture of valves.

Dr. Tyson said that the aneurism seemed to have its origin in the sinus of Valsalva, whence it had dissected the muscular tissue of the heart towards the base of one of the leaflets of the tricuspid valves without perforating into the cavity of the right ventricle. The perforation of the semi-lunar valves of the aorta he thought secondary, for if it had exerted its force primarily in this direction, it would have perforated into the left ventricle. The origin of the infarcts does not seem at all clear. They ought, of course, to have come from the right side as they were of large size and could, therefore, hardly have come around from the left heart, though the systemic capillaries into the right heart, and thence into the lungs.

Dr. Hughes said that we might, perhaps, explain the infarctions by means of the bronchial arteries, as this was the route said to be pursued by embolus to the lungs.

Dr. Neff said that the œdema, as described, was rather remarkable; but the notes would show that there was albuminuria in addition to the enfeebled circulation and pulmonary congestion—this œdema of the *upper extremity* was not constant; as far as the infarcts were concerned, he was anatomically at a loss. In his mind they were always directly connected with the lesion in the left heart, as it was difficult to see how the necessary thrombi could originate in the right side, as the post-mortem revealed no signs of disease here, excepting the projection of the aneurismal bulging, which evidently did not interfere with the circulation. Congenital aneurism, as described by Peacock and others, were lower down, as a rule, in the undefended space, and they were rarely, if ever, the direct cause of death, unless accompanied by endocarditis. The rupture of the cusps was due to their weakened condition, dependent upon calcareous degeneration.

Dr. Tyson was much struck with the explanation given by Dr. Hughes as to the origin of the infarcts, and thought that we paid too little attention to the bronchial arteries as a factor in pulmonary infarction.

Dr. Shakespeare agreed with Dr. Hughes, and thought that Colmheim, through his celebrated study of the embolic processes, had shown that pulmonary infarction usually takes place by way of the bronchial arteries, which are, according to him, of a terminal character.

Sarcoma of Retro-Peritoneal Glands.

Presented by Dr. James Tyson.

Samuel D., a gardener aged 43, unmarried, was admitted to the Philadelphia Hospital, August 15, 1884. There was no family history of phthisis or cancer, nor has he ever had syphilis. Three years ago he had a tertian intermittent fever which lasted a week only. He thought he had injured himself by heavy lifting in June, 1884, and dated his illness to that time, although he admitted having experienced some discomfort prior to that time in the constant stooping that his occupation required of him. About July first, he noted that his feet and legs had begun to swell; also, that the swelling would partially disappear at night. At this time he also began to have, at irregular intervals, severe pain in his legs, especially the left leg. He was subject to alternate constipation and diarrhœa. This was about his condition when admitted. There was also noted a swelling immediately below the edge of the ribs on the right side, which was ascribed to enlargement of the liver, the dullness occasioned by it being directly continuous with that of the latter organ. His condition changed slowly, but gradually the tumor became more evident, and the pain in the right leg increased. He was certain when

admitted there was more pain in the left, and that at that time could not lie on the right side, while by November 20th he could rest more comfortably on that side. At this time the dullness extended in the mammillary line from the sixth rib to a line drawn transversely from a point one inch above the anterior-superior spinous process of the ilium. In the mid-axillary line the dullness extended from the ninth rib to the crest of the ilium, and posteriorly from the eleventh rib to the same point. The tumor was bounded on the left and below by a line drawn from the umbilicus to a point one inch above the anterior-superior process of the ilium, and thence obliquely to that bone. There was distinct bulging in the right flank and right lumbar region. The circumference of the abdomen through the umbilicus was 34 inches. There was greater fullness in the right flank laterally and posteriorly, and the veins over this region and the right half of the abdomen were distended. From December first he was confined to his bed, being unable to stand in consequence of what he described as weakness in his legs, especially the right; and he suffered so much pain as to require the regular administration of morphine. The circumference through the umbilicus was 36 inches. The sulcus at the border of the ribs had become more marked. There was at no time jaundice, and while he gradually emaciated, there was no cachexia.

(*To be continued.*)

Editorial Department.

Periscope.

Incontinence of Urine in Children.

Dr. Samuel S. Adams, of Washington, D. C., publishes a very interesting paper on this subject in the *Jour. Am. Med. Ass.*, January 3, 1885, from which we make the following extracts. After stating that he considers the condition a disease and not a vicious habit, as so many parents seem to think, he goes on to say:

We generally find the disease divided into three varieties. In the first class, the subjects suffer from a constant dribbling of the urine day and night. This variety is infrequent, and when found, it is usually associated with some serious pathological state. I have met with but two cases of this kind, in boys about eight years of age who for several years had been unable to retain their water. Examination revealed a vesical calculus in each case, which being removed, the function of the bladder became normal.

A second class comprises those whose incontinence is intermittent in character, and occurs in the day as well as at night. We find that in this class the urine is retained for a short time during the day when the desire to void comes, but before the child reaches a convenient place the sphincter is overcome, and the poor child is powerless to stop the flow. This is the form usually met with in the girl. In fact, the histories of those I have seen have been that the girls would suddenly be taken with a desire to urinate, while in school or on the street, but before they could reach a closet the power of control gave way. The cause in these cases was found to be vulvitis or urethritis, as a result of the irritation from ascarides in the vagina.

But the third class is the one that interests us most because of its frequency in both sexes, its nocturnal character, its possible concealment for years, and the promptness with which it yields to treatment. It is the children of this class who are so frequently punished for bed-wetting when they are as powerless to control the sphincter during the night as are those of the two preceding classes during the day. They may, and usually do, urinate before retiring; and yet, about midnight, during a profound sleep, the urine is passed again; or it may be that the night is passed without the accident, but just before rising in the morning the contents of a full bladder are involuntarily set free. Patients of this class generally dream of urinating. In the boys of this class urination takes place during erection of the penis. Again, we meet with cases where the cause is obscure, but, nevertheless, the nocturnal incontinence occasionally takes place. In these patients I attribute the accident to causes that favor a perfectly physiological process in the adult. We well know that late suppers, rich food, wines, certain positions during repose, profound sleep, amorous or lascivious dreams, and many such cases, produce a nocturnal pollution in the adult, and I am convinced that the same causes excite a similar irritation in the child, but instead of the seminal discharge, the physiological process of which is not yet established, the bladder is emptied. In each instance the discharge is the result of a conservative process of nature to relieve the irritation. Indeed, this theory seems the more plausible because in many instances the nocturnal bed-wetting goes on undisturbed until the full establishment of the sexual functions, when the enuresis is superseded by nocturnal pollutions. This theory is also tenable because most of the remedies which cure the adult of his complaint very quickly relieve the child of its.

To determine the pathological condition is not always an easy matter. Atony of the sphincter vesicæ, or spasm of the detrusor urinæ may be the cause. The controlling power over the sphincter, which is largely reflex, may, by the influence of the will, prevent the escape of urine during the day, but at night, when the will is asleep, this power is relaxed, and the consequence is involuntary micturition regardless of cerebration.

As I do not admit that incontinence is frequently the offshoot of fear or laziness, of course I hold that moral suasion and corporal punishment are not efficient correctives, and equally of course I contend that in most cases the indicated procedure is either remedial or operative.

It would be more interesting than instructive to examine the literature of the internal remedies which have been successful in these cases. Nearly every drug in the materia medica has been tried with equal success, if we are to credit the books. Drugs physiologically and chemically incompatible have been combined and success claimed for them. Accepting the theory of a want of tonicity in the muscular walls of the bladder, some have used remedies that should have aggravated the trouble, and yet have claimed a perfect cure. In such cases the results were probably accidental, and most likely were brought about by nature in spite of the treatment.

Leonardi and others extol chloral, but others have failed to derive any benefit from its use. It acts by allaying the reflex irritability in the cord. I do not approve of the use of this drug with children, certainly not except with the utmost caution. Owing to the variability in strength of the preparation, and the uncertainty of its physiological action, as well as the individual idiosyncrasies, it must, in my opinion, be regarded as one of the most dangerous and uncertain remedies in common use.

The bromides take foremost rank in the treatment of those cases in which an exalted nervous condition can alone account for the incontinence. They should be given in large doses at bedtime.

But belladonna is the remedy *par excellence* in the treatment of those cases believed to be associated with a tonic spasm of the bladder. One of its physiological actions is to relax the tonic contraction of the involuntary muscular fibres. The muscles of the bladder being of this class, when the atropia in the urine comes in contact with the walls of the bladder it allays irritability and relaxes spasm. In order to derive benefit from the drug it should be given in large doses at bedtime, which should be increased, drop by drop, daily, until improvement results or its physiological effects are obtained. It must be borne in mind that children will bear much larger proportional doses than adults. I speak in the highest terms of this drug because, as will be seen from the foregoing cases, it alone produced beneficial results in about four weeks.*

If there is a relaxation of the sphincter vesicæ or paresis of the muscles of the bladder, strychnia is indicated. But as I have never seen a case of this kind, I have had no experience with it.

If the patients are puny or in ill health, we would naturally expect better results by improving the general health while we are administering remedies.

Experience has taught me that the best success attends those patients who are treated in hospitals. In these institutions the diet of the child can be regulated, and many advantages gained in treatment. Parents will insist and believe that the physician's instructions are carried out in full; but they forget the sympathizing friends about the house who think the child unduly restricted, and who are, therefore, willing and ready to cater to its whims. For this reason it has been my custom to advise children to be placed in the hospital. If the patient can be fully controlled, success will quickly attend the treatment indicated.

In order to make statistics of operative procedures valuable, the use of remedies should be suspended. If we operate, then the operation should stand upon its own merits, and not be embarrassed by drugs. After a circumcision, if belladonna is given how can we tell which means effected a cure? In the cases above reported as operated on, nothing but soporifics were given.

I do not advocate circumcision as the certainly indicated remedy in all cases, nor do I believe that every boy who has incontinence, with an elongated prepuce, should be compelled to undergo the operation. If the prepuce cannot be retracted, then I would advise operating; and while sometimes the opening in the prepuce is large enough, yet it cannot be retracted owing to adhesions. In such cases, if these adhesions are broken up favorable results will follow.

I prefer to perform the operation of circumcision in the following manner: The prepuce is drawn forward, and Henry's clamp tightly applied; the end of the prepuce is then cut off with scissors, and the clamp left on the stump for several minutes to check bleeding; a director is then pushed along the upper surface of the glans, and the mucous membrane divided beyond the corona. The membrane is then turned back to meet the retracted skin, and made fast by five silk sutures. In about ten days the patient is well. I remove only that part of the mucous membrane that is cut off with the end of the prepuce; for by leaving a long membrane it can be turned back and thereby hide the cicatrix, which is a source of mortification to many parents. In cases 8, 15, and 16, there is nothing to attract the attention to circumcised organs. One objection to the operation is that the glans will be left uncovered, and that it destroys to some extent the sensitiveness of the organ. If this were true it would in many cases prove a great blessing, but, unfortunately, it is not true. Another objection is that the beauty of the organ is destroyed, whereas, in fact, if the circumcision is neatly done the penis presents a far better appearance than it does with a redundant foreskin.

From the foregoing cases, which have invariably been attended with complete success, without the administration of a drop of medicine, is it to be wondered at that I so strongly favor circumcision?

Some have advised forcibly stretching the contracted prepuce—a process both tedious and unsatisfactory.

Teevan, a British writer, advocates slitting the meatus, which he thinks is too small in most children with incontinence. As I have not seen any cases requiring the operation, I must accept his statement that benefit was derived from it.

There is one other kind of treatment discussed and recommended in the books, that may be called the mechanical.

Many here present, I dare say, have been called to treat an œdematous prepuce caused by tying a string around the penis to prevent bed-wetting. Perhaps some little fellow, after frequent thrashings, has finally, in sheer desperation, conceived

*In all of Dr. Busey's cases the belladonna was given at night, and increased, drop by drop, daily, until the desired effect was produced.

the idea of eluding the lash by tying up the escape-pipe. He may have missed the chastisement, but he paid dearly for the immunity.

Corrigan, apparently a writer of note in Great Britain, deliberately and strongly advocates hermetically sealing the prepuce with collodion. He stretches the prepuce and forms a pouch, into which the collodion is poured, solidifies, and thereby prevents the escape of urine!

Compression of the membranous portion of the urethra by a pad, and packing the vagina, have also enthusiastic devotees!

Knotted towels, spiked belts, and other uncomfortable rigging to prevent the child from lying on its back, have also received their share of commendation.

It seems hardly necessary to comment on these various mechanical methods of treatment, since they seem to evince a hopeless ignorance of the etiology of the disease, and are not only valueless, but actually harmful.

Recovery from Traumatic Tetanus.

Dr. James Murphy reports the following case in the *Lancet*, February 28, 1885:

J. S——, a lad aged fifteen, was admitted on September 24, under my care, with well-marked symptoms of acute tetanus. The following history was obtained: Twenty days previous to admission the terminal phalanx of his left thumb had been severely crushed and bled freely, but there was no fracture of the bone. He was treated by Dr. Shelley with an astringent lotion, but the wound showed no signs of healing, and after a week presented a very foul greyish appearance, as if a fungus were growing on it. During this time he felt well, and was running about, but four days previous to admission he felt very languid, and had a general feeling of malaise, which was soon followed by stiffness of the muscles of mastication and of the face generally and of the neck. This condition rapidly spread to the muscles of the limbs and trunk, and when admitted the risus sardonicus was particularly well marked, the under jaw protruding and fixed, so that the tongue, which was thickly coated, could but with difficulty be passed between the teeth. The muscles of the trunk and limbs were very rigid, and opisthotonos well marked, the lad resting on his heels and occiput, and every few minutes a violent and characteristic spasm of the voluntary muscles would seize him, which would soon cease completely and leave him perfectly still. These attacks would sometimes be delayed as long as half an hour if nothing disturbed him, but the opening of a door, or speaking to him, brought them on at once. On placing the hand on his abdomen, it felt like a board. His wrists and ankles were quite movable, and were not affected at any period of the attack. He complained of great pain in his thighs, similar, but much more severe in character, to ordinary cramps. His pupils were normal; his eyes generally closed. He never spoke except when asked a question, and then replied as laconically as possible. His intellect was quite clear, and his temperature 100°. He was at once given a calomel and jalap purge, as his bowels had not been open for several days, and placed in a small private ward, which was regularly kept at a temperature of 65°, and though there was no apparent draught, the bed was carefully surrounded by large screens, and he was placed on twenty grains of chloral and thirty of bromide of potassium, to be administered every three hours, day and night. What milk he could swallow, with great difficulty, was allowed him, and he had nutrient enemata of beef-tea and eggs. The whole of the terminal phalanx of the injured thumb was amputated shortly after his admission. Within twenty-four hours the spasms had ceased very considerably, and now only recurred at an interval of an hour or two, and were much less severe in character. The temperature sank to normal. The case progressed day by day to complete recovery about the twentieth day after admission. The progress towards recovery was well marked during the first forty-eight hours, after which the symptoms were but slight, and gradually passed away. First the spasms disappeared, then he could open his mouth a little more, next the pain in the thighs was not so distressing; the opisthotonos became less marked; then the risus sardonicus slowly faded away; the rigidity disappeared, and he completely recovered; the temperature having varied from 101° to 96° without any apparent cause. The amputated phalanx was examined, but without any definite result.

Dr. Murphy attributes the satisfactory result not to any one part of the treatment, but to the whole of it. First, the removal of the irritating wound, then the free use of chloral and bromide of potassium, to control the spasms, which he regards as of great consequence so as to guard against the consequent exhaustion, and for the same reason the isolation of the patient in a small private ward, where the temperature was kept at 65° without varying, and the bed carefully protected from all draught by large screens, and, finally, the judicious administration of plenty of nourishing food by mouth and rectum.

Arthropathia Progressiva.

Dr. Allan McLane Hamilton thus writes in the *N. Y. Med. Jour.*, January 24, 1885:

It is my purpose to call attention to what I believe to be a new form of arthritic disease of nervous origin—a symmetrical arthropathy of a distinctly progressive nature and of slow development. Irregularly distributed joint affections are not uncommon in connection with some forms of cerebral and spinal degeneration—with certain varieties of hemiplegia, with secondary degeneration of the crossed pyramidal columns, and with sclerosis of the posterior columns of the cord. In such instances we find that the knee or the hip-joint is the common seat of trouble, and it is rare to discover that more than one articulation is involved to any decided degree.

I have never discovered anything like regularity in the invasion of the arthropathy, nor any special selection of joints, until I examined a patient, Mrs. T., who came to me at the request of Dr. Agar, of Middletown, N. Y.

The patient is a married woman, forty years old, who has had no children nor miscarriages. Her family history is good. She has never had

syphilis, and there is no history whatever of rheumatism in the ordinary sense of the word. About fourteen months ago she first noticed that her ankles became swollen, the outside of the left ankle being puffed. This was unattended by much tenderness, but there were shooting or darting pains running up the leg. This swelling, which was apparently œdematous though hard, disappeared at the end of two months, leaving a slight prominence. About ten months ago her attention was directed to the stiffness of her two forefingers, accompanied by some swelling upon their palmar aspects, which was very great, and at the same time the joints became swollen. The little fingers were next implicated, and afterward the other fingers more or less. Latterly both thumbs have become involved, and are now much swollen, especially upon their palmar aspects, and the œdema of the fingers has in most part subsided. Last winter the right shoulder joint became stiff, and the seat of sharp pains. There is very little soreness and tenderness of the affected joints, which is slightly aggravated by movement. She also has sharp pains in the biceps humeri of the left arm, and upon the outer sides of both forearms, in the left wrist, and under the left knee. There is no spinal pain and no plantar anæsthesia. Her gait is slightly ataxic, and she is clumsy in all her movements. There is a loss of muscular power—hardly a decided paresis—but the feebleness which belongs to myxœdema. She flexes her fingers only to a limited extent, and then only with great difficulty, and she has more control over the ring-finger than any of the others. Her condition is affected in no way by changes in temperature or errors in diet, and exercise does not materially increase the little pain she has. Her urine is free from albumen and casts, and does not show any excess of uric acid, sugar, or inorganic constituents. It is, as a rule, clear, and passed in large quantities. Her vision is quite decidedly impaired, and her accommodation is defective. There is some white atrophy of both optic nerves. The left pupil is slightly smaller than the right. Her tongue is large and flabby, but there is little thyroidal enlargement, no atrophy, no loss of hair, and no flushing whatever. Heart normal. Speech unaffected. Left reflexes all exaggerated to some degree, especially the left rotulian reflex.

Her inability to flex her fingers is largely due to a mechanical difficulty, though, as I have said, there is some flexor weakness.

I do not think these symptoms can be confounded with those of any other disease—certainly not with *arthritis deformans*, a case of which somewhat resembling that of Mrs. T. was recently reported by Dr. Leonard Weber. There is here no history whatever of the rheumatic influence, but ample associated evidence of some profound disorder of the central nervous system. My experience has led me to look for arthropathies with degeneration, especially of the sensory tracts, and in the cerebral cases of the form first described by Allison, and afterward by Charcot, and a host of other observers, a history of pain is the rule. There can be no doubt of this connection in locomotor ataxia.

In Mrs. T.'s case we are furnished with four important symptoms of that somewhat rare disease known as myxœdema—the enlarged tongue, the pseudo-paresis, the pains, and the sclerodermа—and the unilateral contraction of the pupil may be added. The history of so many negative symptoms, and the fact that the face was in no way affected, would do away with any possible misunderstanding.

Certain French writers, among them Arnozan,* speak of a limited œdema of nervous origin, and Mayet† has, in a case of fracture of the vertebræ, found an œdema limited to the exact regions which were anæsthetic.

According to Arnozan and others, the œdema begins suddenly with the arthropathies, and disappears gradually during their evolution, which was the case in my patient, and which I believe to be one of the points in the differentiation of those arthropathies which are of neurotic origin from others which are purely the local expression of the rheumatic condition.

Cerebral Pathology.

The *Lancet*, January 17, 1885, says:

At the last meeting of the Clinical Society a paper was read by Dr. Hale White, on lesions of the frontal lobes. It is a matter of surprise, considering the freedom with which such questions have been discussed, that so much yet remains to be learnt. Has it not been accepted as a fact for some time past that injury to or disease of one of the frontal lobes is unattended with important damage of the ordinary functions of mental life? Whether this absence of symptoms is due to insufficiency of examination or not seems to be a matter worthy of consideration. Another possible view of the case is to suppose that in the recorded cases the individuals injured in the frontal regions have not been of the educated sort, and that as a consequence the functions which should have been present have never been developed. It seems certain that this kind of explanation would hold good for many cases of absence of symptoms when we have to deal with infants and others whose mental powers have not yet appeared, for the all-sufficient reason that the structures which entitle them to the possession of the faculties are then in an immature condition. Moreover, it would appear that Hartley's time-honored distinction between volitional and automatic actions is greatly in danger of being forgotten, or at least of being misunderstood. We should have thought that no one would have cavilled at Mr. V. Horsley's statement that the drawing of a triangular outline with one hand whilst the other was describing a circle was an impossible performance of consciousness. Consciousness is single and undivided, as best seen in close attention. But there are such processes as may safely be called sub-conscious, or almost unconscious, and amongst these must be classed the performances of telegraph clerks, weavers, and interpreters of music, whether of the Chopin order or not. It is not uninteresting to consider how far education would be possible in the absence of that most important principle which shows that volitional acts do, after a series of per-

*Des lésions trophiques, Paris, 1880.

†Gazette Méd. de Lyon, 1868.

formances, become automatous, requiring very little or almost no guidance from the highest intellectual centres. The last meeting of the Clinical Society might not unreasonably be called a psychological evening, for both Dr. Hale White and Mr. Victor Horsley made the paper which the former read the occasion for some general remarks on the psychological functions of the cerebral cortex, if such a mode of expression, where mind and matter are confused together, be allowed. The latter gentleman is a supporter of the view that the highest intellectual functions are mostly energized from the hinder portions of the brain, whilst the frontal regions are the special seats of the highest emotional faculties, including, as we understood him, the power of giving expression to these. The lines of Hamlet, "See what a grace was seated on this brow; Hyperion's curls; the front of Jove himself!" would on this showing not be testimony to the intellectual faculties of the Queen of Denmark's first consort. However, the time has not yet arrived when we can speak with certainty on such matters, though it is clear from Prof. Ferrier's experiments and many clinical observations that the perceptive functions associated with the most intellectual organs of sense, the visual and auditory, are represented in the posterior regions of the cerebral hemisperes. The view which Dr. Hale White propounded with regard to the most recently acquired faculties as having no very definite site in the cerebral cortex, so that either frontal lobe may assume the functions of the other, would appear to have some kind of connection with the views of evolution and dissolution as propounded by Dr. Hughlings Jackson. Though it is usually taught that function precedes structure, yet there are many considerations which lend support to the notion that these elements go hand in hand. On this view it is not difficult to understand how, so to speak, virgin brain soil may be made by education to perform any functions whatsoever. True it is that through a long series of ages certain specializations have already been effected, and the development of the individual must on the laws of evolution proceed along the lines which heredity has laid down—that ontogenesis must be rapid phylogenesis. But, potent as are the influences of untold generations of experience, still the present agencies are in a measure, perhaps, more powerful.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——The literature of cocaine is rapidly increasing. A monograph of 88 pages is before us by Dr. H. Knapp, with supplementary contributions by Drs. F. H. Bosworth, R. J. Hall, E. L. Keyes, and Wm. M. Polk, which illustrates the use of the drug not only in surgery of the eye, but in many other applications. It is highly suggestive, and should have the attention of all who are studying the action of this novel product. (New York: G. P. Putnam's Sons.) Another reprint on the value of cocaine as a local anæsthetic to the nasal, aural, and conjunctival membrane, is by Dr. J. A. Stucky, of Louisville. He observes:

"In four cases I was unable to obtain any appreciable anæsthesia of the parts to which the remedy was applied. The cause of this I am inclined to attribute to the solution used, or perhaps to the improper or ineffectual application of the remedy. Certainly the results already attained are sufficient to make us feel that our 'fondest hopes,' in the way of local anæsthesia, 'have been realized.'"

——Owing to the liberality of Mr. George S. Davis, of Detroit, the *Index Medicus* will be continued. That gentleman, with an enlightened appreciation of the higher branches of science only too rare among business men, has undertaken to continue the publication of the *Index Medicus*, on the same general plan, and with the same regard to typographical accuracy and finish, as heretofore. On account of the delay required to perfect this arrangement, the first number of the journal for the current year will comprise the literature of January, February, and March, after which it will appear monthly, as usual. At the end of the year, in addition to the usual annual index of names, subscribers will be furnished with an index of subjects to the volume. Address, *Index Medicus*, Washington, D. C.

BOOK NOTICES.

De l' Aphasie, et de Ses Diverses Formes. Par le Dr. Bernard. 1 vol. 8vo., pp. 271. Illustrated. Price, 4 fr. Paris, A. de la Haye et Cie.

"The Disorders of Intellectual Expression" would have been a more appropriate title of this work, as it is by no means confined to the ordi nary limits of aphasia. After several introduc tory chapters, in which the author treats of the definition and history of disease, of the nature of language and its physiological seat, he explains the various forms of the disease, their origins and relations, and includes in his view agraphia, or the inability to use written language. Complex aphasias are then considered, and a chapter is devoted to the consideration of the medico-legal bearings of many of the facts he has set forth. We can commend the monograph as an excellent one.

—Dietrich's proverbial philosophy: "Dietrich, your father-in-law is very low," said the physician. "I think he will hardly live through the night." "Ach, well," says Dietrich, "dot was all right. De better he is dead de quicker he is off."

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THE WATER SUPPLY OF PHILADELPHIA.

For years it has been well known, and fully recognized by all thinking and intelligent persons, that the water supply of this great city was gradually becoming so contaminated, so unfit for use, so *rotten*, that a remedy was imperatively demanded. Unfortunately, the thinking people have taken it all out in thinking; *action* seemed to be beyond their comprehension; talk, which is cheap, has been indulged in, but no improvement has been made.

On Monday evening last, Colonel William Ludlow, the able, and we might say, *too* efficient chief of the Water Department (*too* efficient, because his recommendations are *too* intelligent to be appreciated by the grovelling minds that make up the greater part of our councils), delivered a lecture on the "Water Supply of Philadelphia," before an appreciative audience, in the hall of the County Medical Society. Colonel Ludlow is a forcible speaker, and his acquantance with his subject is absolutely perfect. Any one who listened to his instructive lecture must have gone away thoroughly impressed with the idea that the last syllable in the name of our water supply (Schuyl*kill*) has more truth than poetry in it.

Colonel Ludlow tells us that the Schuylkill drains a valley which contains a total population of about 350,000 souls. Just think of it; we in Philadelphia drink this water, after it has received daily the fæces and urine of 350,000 persons.

The idea that water purifies itself we have before combated, and we are glad to see that so distinguished an authority as Colonel Ludlow supports us in this view. To a certain extent, this will occur; a flowing stream exposed to the air will by the action of the atmosphere have some of its poisonous nitrogenous compounds oxydized; but to suppose that a stream so thoroughly polluted as our Schuylkill must be when it reaches us, can possibly on its way to us be sufficiently purified by atmospheric influences as to render it *fit to drink*, is so preposterous as to be unworthy of consideration.

Colonel Ludlow startled his audience by saying

that there were no less than four sewers, over two miles long, that have been for generations pouring their foul fluids into the pool which contains the greater part of the city's water supply, and thus nine hundred thousand or one million people were constantly endangered by the drainage and waste of seven or eight thousand people in Manayunk. Should an epidemic break out in that place or at the Falls of Schuylkill, or among the mill hands along the river, the results might be horrible to contemplate. During the past year steps have been taken to obtain better drainage, but the force of inertia and selfish resistance is hard to overcome. In January last, Councils instructed the Water Department to warn persons who were polluting the river at Manayunk and elsewhere to cease throwing their refuse into the stream. The department did warn them, but out of one hundred and fifty cases of that kind reported, only two had been properly attended to. Is not this apathy horrible to contemplate?

But still worse; Colonel Ludlow has himself been asked by men who had received warning to withdraw the warning; but, to his honor be it said, he refused peremptorily to do do so. *But*, and this is a very big BUT, worthy of most serious attention and condemnation, Councils propose to *instruct* him to withdraw these warnings. We can only account for this proposed action on the supposition (that has become almost a recognized fact) that councilmen drink very little *undiluted* water.

Colonel Ludlow declared that there were thousands of polluted wells in use in the city, and that two thousand had been already complained of to the Board of Health. The water of these wells was clear and bright and sparkling, but it was not always the clearest water that was the purest. A gentleman on Walnut street, disgusted with the Schuylkill supply, sank a well under his own premises. He struck pure, bright water eighty feet down. At the Colonel's earnest request he submitted some of this water to a chemist and the report was: "The water is not fit for boiler use, and for drinking purposes it is poisonous." What are we to think of wells sunk into a soil impregnated with the drainage of generations?

Is it not incredible that the people of a large city like Philadelphia will submit to such outrages? No, it is not incredible, because it is a fact that they do; and why?

We have in the centre of our *town* a huge, deformed white elephant, that has already cost the citizens of this hygienically-blind city *fifteen million dollars;* we do not need it, and the majority of our *best* citizens did not want it; but there was a *job* in it, and so it has gone on; and by a strange coincidence, this *abortion* of architecture stands on the very site of the old water works of the *village* of Philadelphia. We could raise money enough to build this monstrosity, which is neither necessary nor ornamental; but when we talk about a pure water supply, we are answered that it will cost too much. For the sake of common sense, let us look this matter in the face, and do not longer tolerate this *un*masterly inactivity.

It has been very truly said that "any fool can find fault, but that is takes a wise man to find a remedy," and this proverbial sentence has been repeatedly flaunted in the faces of those who complain of existing institutions. But in this instance Colonel Ludlow is the Solomon who has found the remedy, but our Councils and our people are the unfortunates who prefer to wallow in the mire rather than follow the leadership of an intelligent and capable leader. The sanitary darkness of old Egypt is no greater than that of the city that was *once* noted in our geographies as the *cleanest* city of the country. Those who desire to see an illustration of Egyptian filth, a representation of the cholera-beds of Toulon, Marseilles, and Naples, have but to go into our courts and alleys (our main streets are bad enough, but they are comparatively respectable), and if their sense of all that pertains to hygiene is not aroused, then they are truly blunted to all the details of self-preservation.

To return from our digression, we say that Colonel Ludlow has suggested the remedy.

He realizes that Rome would never have been the Mistress of the World if she had supplied her citizens with drinking-water from the muddy, germ-ridden, and stinking *Tiber;* he knows that our old Roman friends realized the importance of hygiene much more than do our degenerate companions of to-day; he knows that while Greece cultivated her athletic sports, Rome (determined to conquer the world) thought more about good organic health than of extraordinary muscular development (which by no means implies good organic health), and he knows that one of her first thoughts was to give her citizens *good water* to drink.

Hence she went off miles into the country and built those marvellous aqueducts, the ruins of which the visitor to Rome now sees striding, like giants, the lonely Campagna, reminding one forcibly of the foresight and *common sense* of the rulers of the World.

He, unlike most of his brother officials, is a well-read man; he has thoroughly studied his subject; he knows all about *water*, and he suggests that we, of Philadelphia, shall profit by the example of the past. He proposes (and would that it could become an immediate reality) that we, like Rome, shall derive our water from a remote source, beyond the *possibility* of present, and the *probability* of future contamination. He tells us that we can derive a most bountiful supply of the purest water from the Delaware River, at Point Pleasant, about thirty miles from the city, and that the necessary aqueduct and works can be built for about $7,500,000, and completed in three years from their inception.

Let us heed his words well; he knows whereof he speaks. When cholera visits us this summer (if it does) we will be panic-stricken; we will ask why did not the authorities take measures to prevent this invasion?

Let us remember that *we* are so apathetic in all that pertains to health that we cannot expect our authorities to be otherwise. Let us remember that *good water* is absolutely essential to *good health*, and let us give Colonel Ludlow all the aid we possibly can in his good work.

THE PREVENTION OF EPIDEMICS.

In these microbic days, our attention is constantly called, in a much more scientific way than formerly, to the question of the prevention of epidemics. We were wont to endeavor to ward off the entrance of disease by what might be called, in the view of modern science, *empirical* methods. Whether we really will accomplish any more practical results from the scientific medical aspect of the age, is a question for the future to determine.

The profession, as a whole, by no means accepts the scientific views of medicine of to-day, and many of them doubt very much whether we have made any *real* advances. This was amusingly and strikingly illustrated recently in this city, when Dr. E. O. Shakespeare, a student of both Koch and Klein, delivered a lecture on "Cholera," under the auspices of the "Committee on Hygiene, and the Relations of the Profession to the Public." He, of course, is naturally a firm believer in the "*comma bacillus*" etiology of cholera, and he rather plainly intimated as much, though he was neither aggressive nor dogmatic in his assertions. When he finished his lecture, the venerable Dr. Nebinger spoke for some time, the burden of his remarks being that we know no more *practically* about cholera to-day than we did in 1849.

Judge Pierce then informed the audience that, in his belief, during an epidemic of cholera, more persons died from *fright* than from *cholera*. He related a repeatable story about the Plague meeting an angel when crossing the desert. To the question of where he was going, the Plague replied that he was going to kill 5,000 persons. Sometime later, these two met again. The angel said, "You told me you were only going to kill 5,000 persons, but 10,000 have died." The *Plague* replied, "I did only *kill* 5,000; the other 5,000 died of *fright*."

While there is much truth in Judge Pierce's good story; while there can be but little doubt that fright, in times of epidemics, and at all times, for that matter, has an injurious influence: while we have not yet, and possibly never will

entirely and universally accept these beautiful scientific pseudo-facts, yet it is well that we should read about them, and learn how they influence the thought of our day.

Dr. Ezra M. Hunt, of New Jersey, is a man who is thoroughly cautious and prudent: he is not carried away, neither is he blindly held back. At the last meeting of the British Medical Association, he read a paper bearing the title of our editorial, the conclusions of which we give as possessing sound common sense:

1. In the study of the *contagium vivum*, we are to recognize not only change from culture or attenuation, but, as in plant life and animal life, to recognize manifold changes which may take place, so discursive as to obscure identity, and so as to make what, in pathology and treatment, may be a new disease, without involving the doctrine of spontaneous generation.

2. We must give significance to the effect of imparting a disease to the system by channels or modes of introduction different from what may be called its normal method of entrance, and allow for modification of effect from this cause, without any real attenuation.

3. We must study closely, not only the general effects of surroundings, but the fertilization or rankness which certain diseases attain from a compost especially adapted to them.

4. We need, with the same precision, and in a similar direction, to ascertain what are the conditions of individuals who furnish in themselves extraordinary soil for communicable diseases, or who withstand seizure amid exposure, or have but a mild attack, and to recognize that there are ascertainable reasons for this difference, a definite law of susceptibility.

5. We need to give great prominence to a study of direct prophylactic methods, and such as shall seek, during exposure or the prevalence of an epidemic, to prevent an attack, by imparting to the blood and tissues the presence of such substance as shall prevent those changes which an introduced morbific agent would otherwise set up.

Notes and Comments.

Measles Complicating Pregnancy and Parturition.

Dr. Angus Macdonald thus writes in the *Edinburgh Med. Jour.*, February, 1885:

Mrs. Y., æt. 26, I^a, residing in Edinburgh, and expecting her confinement on the 22d of June, 1884, had the misfortune to have measles in her house in the month of May, a little step-son having caught the disorder. This patient was assiduously watched by her for a couple of days until the measles appeared. The lady herself was not aware of having had measles herself. She accordingly was at once removed to another floor of the house, and on the following day to rooms in a part of the city distant from her home one and one-half miles.

June 5. A full fortnight after removal she had some sore throat and sneezing, and along with these symptoms the rash of measles appeared on her skin. Her morning temperature was 99.6°, her evening 102°.

June 6. The measles are very well out all over the body. Slight cough. Temperature as on the previous day. During the night the patient complained of some pains in the back.

June 7. At morning visit the cavity of the cervix was found completely dilated, and the outer os about the size of a shilling, the child's head being pressed against it, covered with a thin layer of water. The morning temperature was 99.5°, the evening 100.2°. In the course of the night, labor became fully established.

June 8. At 5:25 a. m. the patient was delivered of a healthy female child. During the delivery she complained of a distressing feeling of weakness, and of a sensation of faintness. The pulse was quick and small. Some chloroform was given during the second stage, which was easy, and did not last over two hours. There was smart post-partum hemorrhage, which was checked by the exhibiton of ergotin under the skin before the placenta was removed, and by kneading the uterus. The temperature shortly after the delivery was subnormal. Brandy had to be repeatedly administered after delivery to check the feeling of faintness and sickness. In the evening the temperature rose to 100.2°. The patient made an uninterruptedly good recovery, the temperature never afterwards reaching over 100°. The milk appeared naturally, and the entire puerperium exhibited nothing to be specially remarked upon.

About the end of the first week of life the baby showed a distinct punctuated rash, which may or may not have been measles, but which was unaccompanied by any rise in temperature or pulse.

After the scholarly contribution and masterly analysis of cases of this complication lately brought to the notice of the Society by Dr. Underhill, it is quite unnecessary for me to go back on the literature of the subject, further than to

refer the members of the Society to that paper. As cases of this kind are, however, so very rare, it is incumbent upon all members to record them for the public benefit.

It will be noticed from the above record that the case was, on the whole, a very mild one, and was free from any chest complication. But all the same, it was evident that the labor was precipitated by the fever, as the 22d of June was the earliest date on which, by careful analysis, we had calculated the labor would come on, whereas it supervened on the third day after the appearance of the rash, or what would be the seventh day of the fever, although this was sixteen days before the period of expected delivery. It is also noticed that the double demand upon the patient's strength made by the fever and the labor was specially marked in its power of inducing depression. The complaint of excessive weakness made both before and after the administration of chloroform were exceedingly unusual.

Being aware of the special tendency to hemorrhage determined by measles, I had the ergotin ready in the syringe, for use the moment the child's head was born. I had forceps ready also in case the second stage was unduly or unsafely prolonged. But I did not need to use the latter. There was no bleeding before the birth of the child, or any other evidence to indicate hemorrhagic endometritis properly so called. But there was certainly a special tendency to post-partum hemorrhage, which might have led to serious consequences had it not been checked by the injection of ergotine.

From a consideration of this case, and, indeed, from a review of the whole matter, it appears to me that measles are not to be dreaded so much in connection with pregnancy as we have hitherto considered them. Such of us as were trained by Sir James Y. Simpson—and his pupils still form a large proportion of this Society—have framed our ideas of measles in connection with pregnancy rather too closely on the type of the case he used to relate to us. That particular case assumed the form of intense septicæmia. I am not perfectly satisfied that the case was one of measles, as no rash came out, and the evidence from the child's having ultimately exhibited a measly rash can hardly count for much, considering the frequency with which infants suffer from such rashes where there is no possibility of infection. At any rate, from the two cases which have come under my own knowledge, there is no evidence to indicate that the measles poison tends to act as a general septic influence in pregnancy or in the puerperium.

It appears to me that measles are dangerous in pregnancy and the lying-in period—

1. Because they have an undoubted tendency to produce abortion.

2. Because they are associated with a tendency to pulmonary inflammation.

3. Since the delivery, if it supervenes, is undergone when the patient is already weakened by fever, it is peculiarly liable to weaken and exhaust the patient.

4. Because measles have an undoubted tendency to induce hemorrhagic endometritis.

Provided, however, chest complications are absent, or moderately developed, the delivery is completed by the natural efforts, or by aid of art. Before the condition of exhaustion becomes dangerous, and the hemorrhagic tendency is in abeyance, it does not appear that measles need be looked upon as a complication of pregnancy or of parturition that should cause especial alarm.

Treatment of Septicæmia by Ammonia and Chlorate of Potash.

The treatment of septicæmia by these remedies is sufficiently unusual to warrant the report of the case which Dr. Maitland Coffin records in the *Lancet*, January 19, 1885, wherein he says:

"On October 9, I was sent for to see Mr. T——. I found him very ill with erysipelas: and waited on by his wife, who was expecting her confinement every day. On the 14th I delivered her of a still-born female child, which had evidently been dead for a considerable time. Two hours after, I took her temperature; it was 100.4°, and fearing septicæmia, I gave her (having found it of use in other cases of blood-poisoning) large doses of ammonia and chlorate of potash; ordered carbolic acid (1 in 40) to be kept boiling in the room day and night, and the uterus to be syringed with Condy's fluid and water three times a day. The temperature went steadily up until the fourth day, when it reached 105.4°. The patient complained of pain in the throat and great difficulty in swallowing. The temperature kept from 105° to 105.2° until the morning of the tenth day, when it steadily declined until the evening of the twelfth day, then it went up a degree. The patient passed a large quantity of fetid discharge. I ordered the uterus to be syringed every three hours; she continued to improve, and at the end of one month I allowed her to come down stairs. On the sixth day she had some septicæmic spots, which disappeared on the thirteenth day, and throat symptoms on the ninth day. With regard to temperature, for six days and a half it was

over 105°, for nine days over 103°, and for eleven days over 102°.

"The treatment of puerperal fever by constitutional remedies, as distinguished from those which act locally and antiseptically is one of great interest and importance. Those principles which can be applied in the latter case with undoubtedly good effect are not easily carried out in the former. We can conceive that even after local septic activity is arrested, the blood and tissues of remote organs may be extensively infected; and we may naturally inquire whether there are any agents which, administered internally, will arrest the general septic processes, such as the cutaneous changes, which were well-marked in this case, or the analogous processes which we know by pathology are at work in the lungs, kidneys, and other organs. The agents which I employed in this instance have been used by me in similar cases with success, and I venture to think that the facts are worthy of being recorded, though the explanation of the *modus operandi* may not be very distinct. It may be possible that the agents used produced a change in the condition of the blood, which, though very slight, was sufficient to arrest the vitality of the bacteria or micrococci which characterize puerperal infection.

Caffeine as a Cardiac Stimulant.

Dr. Edward T. Bruen thinks that caffeine has not been as widely employed for its action upon the heart as its good effects in the hands of those who have employed it would warrant. In the *Med. News*, January 31, 1885, he publishes the following cases, which testify to its efficacy:

Case 1. A vigorous man of 23, ruddy complexion, in the habit of using alcohol freely, was brought into the Philadelphia Hospital suffering from delirium tremens. There was very rapid, tumultuous, and ineffective action of the heart from the toxic effect of alcohol. Dropsy of the feet. No organic heart disease. Digitalis tried, and found unsatisfactory. Caffeine, 2 grs. four times daily, promptly effective in augmenting the systole. Within a week, its full effect seemed to have been secured. No regulative power was observed, the heart's action continued rapid, and finally became normal when the general balance of the nervous system was restored.

Case 2. A woman of 65 years. Dilated and fatty heart, with mitral regurgitation, hydrothorax, general anasarca, ascites. Was admitted to hospital August 1, and in the interval to November 1 was tapped three times; and various diuretics, always accompanied by digitalis, were given. November 1 she was placed on 4 grs. of caffeine in pill three times daily, and within two weeks a veritable transformation had occurred. Dropsy vanished, and the cardiac systole greatly improved. At date, condition still satisfactory. Caffeine discontinued.

Case 3. Boy of 10 years, with mitral disease, dilated hypertrophy of all the chambers of the heart, influenced by the lesion; ascites. This patient has been under my care for five years. No drug that I have ever used has proved so satisfactory and rapid in its influence as caffeine.

Case 4. Emphysema and cardiac dilatation; and under my observation for several years, finally threatened with evils of cardiac failure, and uræmia imminent. Most satisfactory results from the use of caffeine.

Case 5. Atheroma and aneurism by dilatation. Dilated hypertrophy, with fatty and feeble heart. Digitalis not well borne on account of the pathological changes in the aorta. Jaundice and other evidences of cardiac failure, and venous repletion. Very favorable results from caffeine.

How to Cleanse a Surgeon's Sponge.

We note the following recommendations for this purpose which Dr. John E. Wilson sends to the *New England Medical Monthly*, February 15, 1885. He says that they will never prove disappointing:

℞.	No. 1. Potassæ permanganatis,	grs. xxvj.	
	Aquæ,	1 pint.	M.
℞.	No. 2. Sodæ hyposulphite (commercial),	℥ ij.	
	Aquæ,	℥ xiij.	M.
℞.	No. 3. Glycerine,	℥ ss.	
	Water,	1 pint.	M.

When the soda is dissolved, add muriatic acid 1 ounce. This solution should stand twenty-four hours in order to let the sulphur precipitate, caused by the action of the acid on the soda. It should be poured off in the open air so that the odor of the sulphurous acid will not be inhaled. Having made the sponges free from sand and other impurities by gently beating them, wash them in water and squeeze them out as dry as possible, and place them, a few at a time, in solution No. 1 in a suitable glazed vessel. Let them remain a few moments, or until they have acquired a dark mahogany-brown color. Then they are squeezed dry as possible by hand to free them from the solution. They are then dipped, a few at a time, in solution No. 2. The sponges are allowed to remain in this solution a few moments,

occasionally squeezing them in order to allow the fluid to thoroughly permeate them. Squeeze out and wash in several waters in order to free them from the sulphurous odors. When they are nearly dry, immerse them in solution No. 3. Squeeze by hand, and let them dry in the open air, but not exposed to direct sunlight. This will leave them white, soft, and not rotten, as will most other processes with which I am acquainted and which I have tested. I am satisfied that if once tried, my process will be found to be so simple and satisfactory that no one will use any other.

Non-Penetration of the Lining False Membrane an Unnoticed Danger in Tracheotomy.

Under this heading, Dr. Ashby G. Osborn thus writes to the *Brit. Med. Jour.*, January 19, 1885:

In a recent operation for laryngo-tracheotomy, on a child about four years old, for croup, where the general condition and the absence of lividity seemed to promise a favorable result, I was baffled at finding, after the insertion of the tube, that but one feeble inspiratory effort with the well known "whiz" of entering air was made, and that artificial inflation failed to distend the lungs.

Though an examination with the finger showed that the tube had entered the wind-pipe, artificial respiration was fruitless, and I had the pain of seeing my little patient die during the operation.

A necropsy revealed the difficulty; the opening into the larynx had been made rather on the right side of the median line, and Fuller's bivalve tracheotomy-tube had passed down between the trachea and the false membrane, thus pressing together the sides of the lining tube of false membrane, and preventing the passage of air.

A freer opening into the larynx or trachea would render it less likely that a false membrane could escape division; and I hope, by placing this failure on record, that more stress may be laid on the importance of this point, as insisted on in the excellent text-books of Holmes or Bryant, where, though a free opening of the normal tissues is recommended, no mention is made of the risk of the canula in its passage pushing before it the undivided false membrane, as happened in this instance.

Nor is the danger alluded to in the discussion which followed Dr. Buchanan's paper on tracheotomy, at the International Medical Congress of 1881. Thus, from the silence of those who have frequently operated, it would appear that this source of danger has not often been met with.

Are Syphilitic Children Necessarily Emaciated?

A very generally accepted view is that children who inherit syphilis are usually, or, we might say, always puny and emaciated. That this view is erroneous, we have felt very strongly, and we are glad to see that so high an authority as Dr. John M. Keating entertains the same idea, for in a clinical lecture published in the *Med. Times*, December 27, 1884, he says:

"Do you always find emaciation in cases of inherited syphilis? By no means, according to my experience. This I wish to impress upon you. Some of you may remember a case which I showed to the class last year, one year of age, which had very large gummæ on the back and on the thighs. The infant was remarkable for its size and appearance of health. My friend Dr. Van Harlingen, who saw the case, pronounced it syphilitic. The child had never been sick a day, but had been born with a "cold," and its mother had previously miscarried, and gave evidence of specific disease.

"One of the worst cases of constitutional syphilis that I ever saw in this house was well nourished—indeed, stout for its age. I have often noticed this, and I believe that it constitutes a characteristic of children who are infected with a mild form of specific disease inherited from parents who have supposed themselves cured before marriage. I would ask you to bear this in mind should a robust and, to all other appearances, healthy infant be brought to you with obscure symptoms—a persistent eczema, or rickets in the ordinary acceptation of the term—it may be really either retarded ossification, or, possibly, osteomalacia."

Large Doses of Belladonna in Incontinence.

Dr. E. Paget Thurstan, in the *Brit. Med. Jour.*, February 7, 1885, says:

"Kate C., aged seven, a delicate child, whose legs were so curved by rachitic deformity that she was scarcely taller than an average child at four years, had been troubled with nocturnal incontinence since her birth. Various plans had been resorted to by the mother without success.

"She was ordered ten minims of tincture of belladonna three times a day. I heard nothing more from her parents, but a fortnight after I happened to meet the mother, and was told the medicine had been persevered in for six days without any appreciable result, and it was evidently looked upon as a hopeless case. I persuaded the mother to try once more. This time

I ordered the belladonna in drachm doses, one dose to be taken in the afternoon, and one four hours later, just before going to bed. These doses caused excitability and a little wandering. The second night there was no incontinence. After that, only one dose a day was taken at bedtime, and this was continued for four more nights. The cure was complete and permanent. Upwards of four months have elapsed, and there has been no recurrence of the trouble.

"*Remarks.*—There can be no doubt, in this case, that the taking of the belladonna and the curing of the incontinence were cause and effect. It is a very clear instance of the different effect of the same drug taken in different doses."

Alveloz for Cancer.

The Washington correspondent of the *New York Med. Jour.* writes to this paper under date of January 26, 1885, that a new and, perhaps, not an indifferent successor to cundurango has sprung up in *alveloz*, a new South American plant recommended as a cancer cure. Our consul at Pernambuco forwarded to the State Department a sample of the drug, with the statement that several cases of alleged cancer had been cured by its application. Unlike cundurango, which was an alleged internal remedy for cancer and syphilis, alveloz is an external application. Its mode of operation is similar to that of jequirity. A profuse suppuration follows its application to a granular surface. On receipt of the medicine, it was turned over to the Marine Hospital Bureau for trial. A portion of the drug was given to Dr. Smith Townsend by the Surgeon-General, for use in a case of lupus of the nose, near the angle of the eye. This case was of nearly forty years' standing, and had resisted all previous treatment. The ulcer was cured within a few days, and the patient was exhibited by Dr. Hamilton at a recent meeting of the medical society. Dr. Hamilton stated that he had under observation an undoubted case of epithelioma of the face, and that, at a future meeting of the Society, he would report the result. He was not sanguine as to the virtues of the drug, but it had certainly done well in the case of the lupoid ulcer.

Chlorine, Iodine, and Bromine, as Disinfectants.

Dr. George H. Rohé, who read a paper on this subject before the American Public Health Association, thus concludes:

1. Chlorine is an efficient disinfectant when present in the proportion of 1 part in 100; provided the air and the objects to be disinfected are in a moist state, and the exposure continues for upwards of one hour.

2. Chlorine, when used in sufficient concentration to act as a trustworthy disinfectant, injures colored fabrics and wearing apparel.

3. Bromine is an efficient disinfectant in the proportion of 1 part in 500; provided the air be in a moist state, and the exposure continues for upwards of three hours.

4. Iodine, in solution, is an efficient disinfectant in the proportion of 1 part in 500; the exposure continuing for two hours.

5. The use of chlorine, and in a greater degree of bromine, requires considerable experience in management; when carelessly handled, they may cause inconvenient or even dangerous symptoms in persons using them; for these reasons they are not suitable as disinfectants for popular use.

Four Twin Births in Succession.

Premising that he can find no recorded case of four consecutive twin pregnancies, Dr. John Hannay publishes the following case in the *Lancet*, January 10, 1885:

On the evening of December 17, I delivered Mrs. O——, aged twenty-nine years, the wife of a small farmer living about two miles from my house, of twins. In conversation, I found that this was the fourth time in succession that she had been delivered of twins. She was born on September 15, 1855, was married on June 1, 1871 (at the age of sixteen years), and had been delivered in order of the following: 1872, July 27, girl; 1874, March 11, boy; 1876, January 18, boy; 1877, October 7, girl; 1880, August 24, twins, boys; 1881, March 12, twins (fourth month) boys; 1883, April 5, twins, boy and girl; 1884, December 17, twins, girls. All the children, with the exception of the one born in 1874 (who died of convulsions in 1876) and the children delivered in 1881, are living and healthy. There was in each case of twins but one placenta. I may add that the left hand of the first child born in December last is absent, the ends of the radius and ulna apparently having no covering but connective tissue and skin. The mother of Mrs. O. had twins upon two occasions, with two single pregnancies between."

A Case of Lodgment of a Breech-Pin in the Brain Recovery.

Dr. G. W. H. Kemper, of Muncie, Indiana, reports in the January number of *The American Journal of Medical Sciences* a very instructive case

in which a lad received a compound fracture of the frontal bone, immediately above the right frontal sinus, by a bursting gun. The breech-pin was found imbedded in the brain, at a distance of one-half inch, and was withdrawn by the aid of dressing-forceps. No untoward symptoms were developed until the evening of the fourth day, when a convulsion ensued because of pent-up pus, and after the removal of the cause no further trouble followed. The lesson to be derived from the study of the case is the necessity of maintaining free drainage, thus preventing an abscess from extending into the brain and becoming fatal.

CORRESPONDENCE.

Alcohol in Disease.

EDS. MED. AND SURG. REPORTER :—

I have just finished reading the last communication of Dr. Hiram Corson, and can keep still no longer. I have never read anything that seemed to me to savor of true science more than do the words of that writer. What a misfortune that all our teachers were not such men as he! I indorse every word he says in regard to the treatment of pneumonia and the use of alcohol.

In an experience of near thirty years, I cannot say that I know of a single life being prolonged by the use of alcohol, but know of a great many being killed by it.

My father died in his eighty-seventh year; his system was not poisoned by alcohol. My mother died on the 29th day of last August, and she would have been ninety-five years old had she lived to the 13th of the following month. She never had any use for alcoholic stimulants, and her mind remained as clear to the very last, apparently, as it ever was. In fact, I do not think she was unconscious for a minute, but just stepped out of the earthly casket into the perfect life.

There has never been anything presented by any one on the treatment of pneumonia that is more correct than the principles laid down by Dr. Hiram Corson.

I will give a single case in my own experience. Enos M——, about fifty years old; system shattered from intemperate habits; after being exposed in a cold rain, was suddenly seized with double pleuro-pneumonia. Saw him first about ten hours after; found him very hot, a quick, wiry pulse, and he could scarcely speak or breathe; expectorating a bloody mucus. I opened a vein in his arm and let the blood flow till he breathed easy and the pulse became almost natural; this required a pint and a half. I then gave a cathartic, and followed this with quinine and Dover's powders. Two days after he rode to town, four miles on horse-back. If there is any other treatment that can give as good results, I should like to know it.

L. L. SILVERTHORN, M. D.

Charleston, Ill.

Curious Obstetrical Case.

EDS. MED. AND SURG. REPORTER :—

At the last meeting of the Gibson County Medical Society, Dr. Stephenson, of Dyer, Tenn., reported the following unique case in obstetrics:

Mrs. ——, several years ago (about five years, I believe), gave birth to a living child under the care of a midwife, a thoroughly truthful and reliable woman. After the birth of this child there was no lochial discharge of any kind—no after-pains—nothing that indicated that labor had taken place, except the child. About the third or fourth day after the birth of the child he, Dr. S., was called to see the mother, on account of her size and the absence of the lochiæ. He made an examination of the mother, and found the facts as above stated. Upon palpating and auscultating the woman's abdomen he detected the movements of the child in utero, and distinguished plainly the action of the fœtal heart. He thereupon informed the woman and midwife that there was another child in utero, and that her size was due to that fact. He made no vaginal examination, inasmuch as the woman was apparently doing well.

On the seventh day after the birth of the first child, the mother brought forth a second healthy living child at full term. After the birth of the second child the lochial discharge came on, and everything progressed as in any normal labor. The children both lived, and were seen by both Dr. S. and other members of the society. Dr. S. then read a letter to the society from the husband of the lady, relating to her last confinement, which occurred in the latter part of 1884, or the first of this year. The letter stated that the last labor was a duplicate of the former one, except that the interval between the births of the twins in this latter case was eight days, whereas it was seven in the former. In the first case the children were both girls; in the second, both boys. Who has met with a similar case?

Trenton, Tenn. T. J. HAPPEL, M. D.

Rash from Salicylate of Soda.

EDS. MED. AND SURG. REPORTER :—

The following case may interest your readers:

March 2. Called to see Miss P——, aged twenty, suffering from an acute attack of inflammatory rheumatism affecting the knees and ankles; prescribed the following:

℞. Salicylate of soda, ℥ss.
Water, ℥iv.
M.—Teaspoonful every three hours.

March 3. Somewhat better. Treatment continued.

March 4. Pain and swelling subsiding, but face covered with a bright rash, somewhat resembling measles, which gave great uneasiness from itching; some rash, also, on hands, arms, and body. I did not at first know to what to attribute the rash, and continued the rheumatic treatment.

March 4. Rheumatism better, but rash worse. I then ordered the salicylate to be discontinued, and there was a decided change in the rash within twelve hours for the better; but when, two days later, I again attempted to give it, the rash promptly reappeared. I have very frequently

prescribed the same for rheumatic patients before, and never saw a rash follow. I should like to hear of any one else who has had a like experience. J. W. Parsons, M. D.

Canton, Pa., March 14, 1885.

News and Miscellany.

An Ideal Medical Life.

The following observations from the *Lancet*, January 10, 1885, are so worthy of perusal by all physicians that we gladly reproduce them:

"The constant recurrence of cases appealing strongly to the sympathies of the profession is a very noticeable fact. Medical life in its ideal is like that of 'virtuous Heberden,' divided into three periods, one of arduous learning, followed by one of equally arduous practice, at once beneficent and profitable, and this crowned by an age of honor, and authority, and rest—the rest only made sweeter by being used for formulating and transmitting the lessons of experience. There is nothing in such a life as his, extending over ninety years, to excite pain or regret. The very change from practice to rest is made easily: the summer spent chiefly at Windsor, and the favorite art, not to say the friendly patients, being still a chief concern of the winter months. This is the ideal, we say, of medical life—one to be worked up to by every medical student and every medical practitioner, but admittedly only an ideal, unattainable by the majority of the four-and-twenty thousand who compose the Medical Register. The ninety years that were given to Heberden for working out his life were in themselves a great and fundamental gift that is not given to many, and without which he could not have completed the picture and the model which are suggested by his character and his history. But still we must have the ideal, and demand of all good men and true that they work up to it. We may not reach Heberden's fame any more than we may reach his age, but we shall certainly get some way towards both by considering how he deported himself.

"There is one feature in his life that strikes us, and which is neither hopelessly inimitable nor completely irrelevant to our present purpose. He did not make haste. He was deliberate. He did not clutch at the sweets of life. And though he waited—shall we say because he waited?—all things came to him. He took all the great steps of his life deliberately, and he put his foot down firmly. Though he was born in 1710, he was not married till 1760. He practiced ten years in Cambridge before he came to London, where he did not begin practice till he was thirty-eight. This was in the year 1748. His success soon became great, and some twelve years after coming to London, George III. wished him to become physician to Her Majesty the Queen. The proposal was significant, but more significant still was Heberden's respectful refusal of it. Such was the respect of the King for Heberden that he not only took kindly his refusal of this great offer, but as kindly accepted Heberden's nomination of a friend for the office, Dr. Leatherland, a man of great worth, learning, and modesty. Surely in this quality of deliberation, not to say slowness, we see some secret of Heberden's success, of his independence, of the dignity, and we must add the charity, of his life. We live fast now. We live in the time of a race of luxury. We must marry soon, and soon be rich. The motto of an old philosopher, 'Quantis non egeo,' is accepted with the omission of the little monosyllablic word in the middle, and before we are all diplomatized, we are saying, 'How many things there are which I want and must immediately have.' A large house, a showy carriage, and everything to match. Every want recognized is the parent of many more. In every branch of the profession, as indeed in every class of society there is the same tendency to multiply wants and to complicate one's establishment. It is all well that ends well. But our pages tell only too pathetically that it does not always end well; on the contrary, that it ends painfully and pitifully. We are not demanding any unreasonable amount of prudence or self-denial in the forecast of life and success. We are not prescribing a gloomy celibacy for every man until he is fifty, or till he is assured of fortune and of fame. We are only reminding our readers that a little more slowness and deliberation in the great steps of life and a little more determination to keep wants few will bring their reward. They may not bring fame; but with reasonable diligence and forethought they will bring ease and competence, and secure those who look to us and may survive us from painful dependence on others. In London especially there is little excuse for any medical man leaving his family entirely unprovided for. There is a society—that for the Relief of Widows and Orphans of Medical Men within the postal district of London—to which it is almost culpable for such medical men not to belong. Should they die poor, their widows and children are provided against destitution on easy and yet independent terms. Should they die in easier circumstances, they have the satisfaction of knowing that they have contributed to the help and comfort of less successful brethren. This society has constantly to press its advantages on the profession, nevertheless, numbers of medical men die without the comfort of knowing that by subscribing to it they have secured these advantages for those whom they love. We are well aware of other circumstances in social and professional life at the present which make deliberation and providence difficult, but they do not make them less binding, or the omission of them more excusable."

Comparative Anatomy.

The *Popular Science News* for February, 1885, has the following:

A young Irishman visited Rome, and there met a friend and fellow-countryman who was pursuing the avocation of a butcher. The butcher acted as his guide; and this is a part of Pat's story of sight-seeing, as told to his sweetheart upon his return:

"The most wonderful thing I saw in Rome was a shtone man."

"A shtone man?" ejaculated Mary.

"Yes," replied Pat; "and they called him

the Polly Belvedere. As we were looking at the shtone man, says the butcher to me, says he, 'Pat, you and the Polly Belvedere are very much aloike.' And be that, we measured. I was broader than him in the fut, but he was higher than me in the inshtep. I was larger than him around the ankle, but he had me in the calf of the leg. My knee was larger than his, but he was better than me in the thigh. My belly was twice as large around as his, but his brist was twice as large around as mine. Then, again, my neck was much larger than his, but his head was much larger than mine. But, as the butcher said, on the general average we were just about the same thing."

General Gordon from a Medical Point of View.

We read as follows in the *Boston M. and S. Journal*, February 12, 1885:

General Gordon's life is as great a mystery as his character. His physical endurance in the desert would be difficult to understand in a strong man; but in a man with angina pectoris, and with a horror of meals, it is simply a kind of miracle. As far back as November 15, 1878, and in that very Khartoum on which the eyes of all Christian nations are turned, he writes: "There are not nine Europeans in the Soudan, and they vegetate and do not live. Can you conceive what it is never to have any desire to eat? That is my case. I hate the operation. * * * My angina pectoris has not troubled me lately. According to medical books it is not known what occasions this. It is heart disease, and makes you think you are on the brink of death. A rush of blood takes place to the heart, and you think all is over. I may say I have died suddenly over a hundred times." We can only find encouragement in such facts to go on hoping that against all human and medical probabilities Gordon will again emerge from the Soudan, and long continue to show the world what can be done by men with grave disease, but with faith in their own mission and in God's providence.

Vienna Surgery.

A writer in the *Pacific Med. and Surg. Journal* says:

I recently saw a case of "Vienna" or "bold" surgery (which generally means an operation done for the benefit of the surgeon instead of the patient). A woman was brought in, suffering from strangulated femoral hernia of three days' standing. Although taxis failed to reduce it, there were no very urgent symptoms as yet present. The operation (which was done at 11 o'clock at night) was accomplished successfully, and secundum artem, as far as the division of the constricting band. The gut silpped back just as soon as the constriction was divided, and *before* it was seen whether the strangulated part was gangrenous or not. The consultant immediately decided that an *abdominal section* should be made *to see if the gut was gangrenous or not!* The operator and most of those present objected, but the consultant decided otherwise, and an abdominal section was made, and the gut found all right. The *operation* was a success, but the woman died promptly (in fifty hours).

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended March 21, 1885.

Sawtelle, H. W., surgeon. Detailed as chairman of Board for physical examination of officer of the Revenue Marine Service, March 17, 1885.

Armstrong, S. T., passed assistant surgeon. Granted leave of absence for thirty days, March 16, 1885.

Ames, R. P. M., passed assistant surgeon. Detailed as recorder of Board for physical examination of officer of the Revenue Marine Service, March 17, 1885.

Items.

—Prof. Hyrtl celebrated, a few days since, his 74th birthday in full mental and bodily vigor. He was, on this occasion, the recipient of many congratulations from his friends, both at home and abroad.

—For pruritus vulvæ, Dr. George Locke states in the *Lancet*, January 31, 1885, that pixene, used as directed for lotions—viz., two drachms of pixene and half an ounce of glycerine to six ounces of water—will have at once a soothing and curative effect.

—General Briere de l'Isle has sent a request to the War Department for a large quantity of quinine for the use of French soldiers in Tonquin. According to General de l'Isle, the present French force in Tonquin consumes $1,800 worth of quinine every month.

—The wrathful reader and the urbane journalist:

A fierce subscriber: "Sir, cuss your paper! Send it to h—."

Editor: "Thomas, change the gentleman's address. If Uncle Sam makes connection, you'll find your paper there."

—Mr. Lowndes reports in the *Liverpool Medical and Surgical Journal* the case of a young girl, aged fourteen, to whom syphilis had been communicated during criminal assault by a man imbued with the superstition common among the lower orders, that sexual intercourse with a virgin is a cure for gonorrhœal and syphilitic diseases.

—Dr. Debove stated at the Société Médicale des Hôpitaux, that he had obtained a rapid cure in several cases of obstinate sciatica by applying chloride of methyl, in the form of pulverizations, along the course of the sciatic nerve. The chloride reduces the temperature to 23° below zero, Cent., and his success has been remarkable.—*Gazette des Hôpitaux.*

—*La Gazzetta degli Ospitali* reports that experimental researches on the physiological action of tobacco have led Dr. Zulinsky to the following conclusions: The poisonous action of tobacco smoke does not wholly depend on nicotine; when this is eliminated tobacco smoke still remains noxious, on account of the alkaloid colidine. It also contains oxide of carbon, hydrocyanic acid, and other deleterious principles.

—The Russian doctor who has invented "Psychopathy" is to be congratulated on his ingenuity and fertility of resource, rather than on his scientific acumen. The mental craze and moral hebetude included under this new term is a perfectly well-recognized form of what Dr. Prichard classed as "moral insanity." No creation of a special term was necessary.

—Medical expert (on the witness-stand): "No, sir, it would have been impossible for the accused to quietly think out his plans for committing the murder while walking on Broadway."

Counsel for the defendant: "State why, doctor."

Medical expert: "Because Broadway is the main artery of the city, and my professional skill teaches me that a quiet vein of thought on a main artery is paradoxical and absurd."

—According to the *London Medical Press*, M. Cazin reported to a recent meeting of the Paris Surgical Society that a patient who had been married many years suffered from such a degree of vaginismus that marital intercourse had never taken place. The vulva and vagina were painted with a solution of cocaine, with the result that the hyperæsthesia was so far diminished and for so long a time that an attempt was at last successful.

—A genius has invented a cushion with a spiral spring, to be worn by skaters where it will do the most good. When a skater who wears one of the contrivances sits down unexpectedly and in italics, as it were, the spring throws him right on his feet again before he is fully aware that there has been an accident. The other night a young man provided with one of these inventions fell a little too hard, and the spiral spring reversed him so violently that the rebound pitched him forward and broke his nose, He will sue the inventor for $10,000 damages.

—At a recent meeting of the St. Petersburg Health Committee, Professor Borking, speaking of the large death-rate in the hospitals of that city, said that he had come to the conclusion that the patients died mostly from weakness; for with their daily allowance of thirteen or fourteen copecks, they cannot even buy a pound of beef for broth. In addition to this, the nurses, who are very badly paid, are reported to steal the food of the patients whenever they can. Surprise is also sometimes expressed in St. Petersburg society at the rapid growth of wealth among hospital authorities.

—The estimate of the quantity of medicines, etc., required for the use of the patients in the Paris hospitals for the present year is as follows: 24,000 kilogrammes of liquorice root, 15,000 of cinchona, 80,000 of linseed, 6,000 of mustard, 15,000 of cod-liver oil, 20,000 of glycerine, 3,000 of orange-flower water, 250 of opium, 2,000 of bromide of potassium, 50 of nitrate of silver, 500 of the subnitrate of bismuth, 60 of sulphate of quinine, 12,000 of carbolic acid, 10,000 of chloral. In addition to these drugs, the hospitals are annually supplied with 30,000 fresh lemons and 40,000 leeches. Fresh herbs are estimated to cost 1946 francs; dry herbs, 45,000 francs.

—According to the *London Medical Press*, Dr. Anton Kozma, of Buda-Pesth, reports that a small piece of Japanese paper, 3 to 4 mm. square, saturated with 3 mgrm. of aconitine and pressed into the hollow tooth, previously cleaned out and dried, and then covered with an occlusive covering of gutta-percha, anæsthetizes the sensitive dentine that renders operations on carious teeth so painful. The larger the quantity of aconitine employed, the more quickly is the desired effect produced, and the longer it lasts. The effect generally continues from twenty-four to forty-eight hours.

—Dr. J. G. Van Marter, of Rome, has discovered at Corneto, near Cività Vecchia, two specimens of ancient dentistry as practiced by the Etruscans, the tombs in which they were found dating from the fifth century before the Christian era. Dr. Van Marter describes this treasure-trove as the "earliest known essay in dental bridge-work," and is at present prosecuting his researches into the practice of stopping the teeth, of which indications have already been noted in prehistoric tombs. An interesting paper on the subject has already been contributed by him to the *Independent Practitioner* of New York.

—A case which may possibly be an example of tropho-neurosis is recorded by M. Lemmonier in the *France Médicale* of December 25. The patient was a young man aged nineteen, who sustained severe injury to the skull after a fall from a height of about six feet. Hemiplegia of the right side, and rapid atrophy of the testicle and of the right upper limb, are the chief phenomena recorded. There was considerable disturbance of consciousness, but ultimately the patient appears to have recovered to a large extent. The hemiplegia was probably dependent upon compression by blood poured out as the result of the fracture of the base of the skull. No other conditions seem to have been present to account for the rapid wasting of the arm or testicle. Nélaton and others have spoken of the possibility of atrophy of the testicle resulting from causes acting at a distanoe.

—A young country dentist was recently favored with a commission to make and fit a complete set of teeth for the Anglican bishop of the diocese in which he resided. The dentist was very anxious about the result of his labor, and watched his lordship examining himself and his new teeth in the pier glass. His chagrin may be imagined when he heard the bishop give expression to language ending with that fearful word, "damnation." He ventured to suggest that his lordship might feel them rather uncomfortable at first, but in a little time he would get used to them. Without appearing to notice the dentist, his lordship exclaimed, with vehemence: "Without doubt he shall perish everlastingly." "But indeed, my lord, if you will but have patience," pleaded the dentist, "in a week's time or so—" "What do you mean?" inquired the prelate, turning round with an apostolic smile. "Why should I not have patience? The teeth fit me beautifully; it is the first time I have found myself able to pronounce the Athanasian creed with distinctness for these twenty years."

THE

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Original Department.

Communications.

ANTISEPTIC SURGERY.*

BY T. J. HAPPEL, M. D.,

Of Trenton, Tenn.

The subject assigned me by the society at its former meeting opens such a broad field for discussion that it is difficult for me to mark out any path in which to travel.

To attempt to give a detailed history of Listerism, or its offspring, antiseptic surgery, would be too onerous an undertaking—burdensome to myself, and tiresome to you. To attempt any description of the minutiæ of Listerism would be a work of supererogation—a presumption on my part that the members of this society do not keep posted upon the current medical literature of the day.

Without attempting either of the things mentioned above, a rapid resumè of Listerism, with what it has accomplished, and some deductions therefrom, will be permissible, and may perhaps interest and profit us.

Of course, we all recognize the fact that in antiseptic surgery, as taught by Lister, putrefactive changes result from the development of the lower order of animal or vegetable life (bacilli) in open or imperfectly closed wounds. It is needless for me to undertake to name the bacilli, or to differentiate their modus vivendi. Suffice it to say that antiseptic surgery in its incipiency was founded upon the idea of existence of these parasites, and the necessity for their exclusion from contact with wounded tissue.

*Read before the Gibson County Medical Society, December, 1884.

An illustration of the modus operandi of Listerism is shown in simple fractures, with the consequent contusion and laceration of the adjacent tissues. So long as there is no laceration of the cutis, so as to admit air to the wound; so long as the fracture is not a compound one, the surgeon anticipates no trouble. He looks forward to a steady and progressive cure, assigning, with some degree of certainty, a time when the patient will be able to use the damaged member. In this case there is no nidus for the development of animal or vegetable parasites. Nature has interposed an antiseptic shield between the air and the damaged tissue. Acting upon this idea as one step, Lister developed the further idea that it was "essential in treating a wound to destroy all forms of animal or vegetable life (bacilli) floating in the air of the room, to destroy all that had obtained lodgment in the wound, and then to prevent the entrance of more; that the wound, after being dressed, should never be opened or redressed except under the same favorable conditions."

We all know how the carbolic spray and antiseptic gauze, etc., etc., were used to accomplish this result; how the air was surcharged with carbolic spray; how the spray was kept playing upon the part operated on; how all the instruments were kept immersed in a solution of carbolic acid of a certain definite and fixed strength: how it was required that the finger-nails of the operators be trimmed, cleansed and carefully soaked in the antiseptic lotion, and the hands and faces of all present subjected to a careful disinfection; how no one could wear clothes at an operation in which he had visited other sick; how, in fine, all of the surgical world became mono-

maniacs on the subject of Listerism. Most brilliant successes were reported, where operations of the greatest magnitude had been performed, followed by recovery of the patient, without any acceleration of the pulse, or any rise of temperature; where all the discharges from the wound had been pure, fresh, and sweet. No one reported for a long time anything but favorable results. Where a case died, the death was attributed to some fortuitous circumstance entirely disconnected from the operation.

But a reaction began. Cases would terminate fatally, in spite of the new gospel of Listerism. More careful surgeons, upon investigation, found the urine smoky, and other symptoms of carbolic acid poisoning present. Finally it became an admitted fact that patients would die from carbolic acid poisoning in antiseptic operations.

A reaction set in, and an attempt was made to prove that antiseptics were dangerous. The fact, however, that the imprudent use of carbolic acid resulted in some deaths could not upset a procedure that had shown such brilliant results. Surgeons continued their investigations to discover safer parasiticides. Benzine, creasote, turpentine, eucalyptol, bichloride of mercury, and a host of other things, were used, all having a common hostility to animal and vegetable life. One surgeon used one, another another. The two that have retained the strongest hold upon the profession have been carbolic acid and corrosive sublimate.

Carbolic acid was claimed to present the following as some of its main advantages: A solution of one to forty was considered sure destruction to bacilli; it was a local anæsthetic; it was cheap, and hence in the reach of all. The villainous odor of the impure acid has been almost entirely removed, leaving in its stead, in the pure acid, only the carbolic smell. This odor always speaks for itself, and hence prevents the solution being mistaken for anything else. The advocates of bichloride of mercury claim that a solution of the strength of one to two thousand is a better parasiticide than anything else; that used in the form of spray in any operation, it is absolutely harmless, etc., etc.

And so I might go on and enumerate the advantages and disadvantages of each of the agents advocated by different surgeons. The process of Listerism finally became a mysterious science, fully understood only by the one using, and then only in his own peculiar way. As to the results following its use, in later years most contradictory reports have been made. No one will question the statement that surgeons, emboldened by the success of Listerism, have ventured to perform, and have successfully performed, operations that they would not have undertaken a few years ago. The abdomen has been opened thousands of times, and many valuable lives saved in what had been considered hopeless cases. Take, for instance, Langenbeck's and Billroth's cases of gastrostomy for cancer of the pylorus, where they successfully removed a portion of the stomach and duodenum to eradicate the disease. The stomach has been opened and strictures of that viscus stretched, and foreign bodies removed therefrom.

The abdomen has been opened in cases of gunshot wounds, bullets removed therefrom, and lesions of the intestines repaired by suturing—in some cases many inches of the bowel having been removed. Portions of the lung tissue have been exsected; and so I might enumerate many other operations done under the stimulus of Listerism.

Prof. von Nussbaum, in summing up the results of antiseptic surgery, says that the mortality among cases treated antiseptically is much less than among those treated according to the old plans of dressings. In his surgical clinic, the death-rate had been reduced one-half since the introduction of antisepsis. Cases of severe wounds, that formerly suffered much from fever of several days' duration, under his new management suffering scarcely at all. Head injuries that formerly contracted erysipelas and frequently died from secondary meningitis, healed in a few days without complications, and the mortality had fallen to almost nil. (*Edinburgh Med. Jour.*, May, 1881.)

In strong contrast to the results obtained by Nussbaum, Dieffenbach, a bold German operator, wrote, only so far back as 1842, "It is unjustifiable to cut into the abdominal cavity in order to take out a diseased ovary. The organism will not tolerate such interference." Dieffenbach had been dead only a few years, when splendid results began to be obtained in England from ovariotomies. A modest calculation shows that through ovariotomies performed in England, France, and Germany, more than 30,000 years of life have been added to the human race. That which was termed by Carl Theodore Merren "a beautiful dream of youth," viz., to remove a cancer of the stomach, has come to pass, and not only that, but Prof. Czerney has demonstrated practically that a person can live after the whole stomach has been removed, he having cut out the whole stomach, and stitched the œsophagus to the duodenum.

Further, as to some of the results of Listerism or

antiseptic surgery: On page 729 of Dr. Thomas's work on Diseases of Women, 4th edition, we find a tabulated statement of 1653 operations for ovariotomy performed by many different surgeons, without the spray or antisepsis as now understood, with 528 deaths, a mortality of 32 per cent. In the *St. Louis Courier of Medicine*, June, 1883, I find a letter from I. Knowsley Thornton, in which he reports 171 antiseptic ovariotomies, with 10 deaths, a little more than $5\frac{3}{4}$ per cent., and, in the same letter, 114 operations where antiseptics were not carefully used, with 20 deaths. In 300 ovariotomies with antiseptic precautions, Mr. Thornton's average mortality was only 8 per cent. Mr. Keith had 80 successive recoveries under Listerism, whilst in that 100 cases (including the 20 which followed the 80) he lost 5, but three of the five were from carbolic acid poisoning. I might devote page after page to comparative statistics, such as the above, without profit to this society, but suffice it to say that the reduction of the rate of mortality would be shown to be barely as great in all. I chose ovariotomy, because the statistics have been carefully kept.

Many of the best surgeons have refused to adopt Listerism in all of its details, and claim equally as good results from the most scrupulous cleanliness, aside from and without the spray. Mr. Keith, after using the spray, abandoned it, because he lost several cases from carbolic acid poisoning under its use. Mr. Lawson Tait has never used the spray. Dr. George J. Englemann, in a letter written from Vienna, and appearing in the St. Louis *Courier of Medicine*, November, 1882, says that the spray is being abandoned, and that cleanliness more that antisepsis is looked to; still, in their dressings, carbolic acid, salicylic acid, and iodoform, are extensively used. Billroth formerly used the spray, but abandoned it prior to 1884, laying greatest stress on cleanliness both before and after the operation.

Dr. Goodell, Prof. Eric, and Dr. Thomas, of our own country, all use the spray. Dr. Gross was no believer in Listerism, but was firmly persuaded that antisepsis in the form of cleanliness was the great essential in surgery. In an article in the *Quarterly Epitome*, March, 1884, I find statements containing the following ideas: "It is argued that germs (bacilli) cause septicæmia; antiseptics destroy germs; the use of antisepsis has been followed by good results, and, therefore, the good results are due to antisepsis, and the complications to the accidental entrance of germs." Carbolized dressings were extolled for a long time, but then it was discovered that the carbolic acid evaporated and left the dressings non-antiseptic. Bichloride of mercury was used, but it has been shown to be untrustworthy, being converted into calomel. Hence arises confusion as to the use of antisepsis in all its minutiæ, but the great lesson of cleanliness still stands prominently to the front.

Lawson Tait, rejecting Listerism, but holding to carbolic ablutions and strictest cleanliness, shows a loss of only three per cent. in his last 100 cases of ovariotomy.

And now, gentlemen, believing that the society expects from each member his own individual views upon any subject, aside from text-books, etc., I beg leave to say that my own experience, however limited it may be, inclines me to the idea that in a country practice, where we have pure air, healthy surroundings, etc., there is no need for the spray. Absolute cleanliness or as nearly that as possible, together with the use of the antiseptics, locally, as a wash for the wounds, or rather as a cleansing agent—you may call it a germicide, if you please—is all that is needed.

In support of this view of mine, I desire to call the attention of the members to many of the operations performed by myself since 1872. In no case was the spray used, and no case has so far terminated fatally. All have progressed as favorably as could have been hoped for, except my first case, performed in 1872, in my earliest professional days. In my record book, I find that on March 17, 1872, I resected about six inches of the ulna for fibroma of its distal extremity. The after-treatment was entrusted entirely to another physician, and erysipelas followed, with a slow, tedious recovery, but with a perfectly useful arm and hand.

My second operation was performed about one week after the first—a case of lithotomy in a most unfavorable subject. A stone was removed measuring nearly six inches in circumference, and weighing more than three ounces. This case I watched myself closely for some time, and then entrusted it to a faithful nurse. The treatment consisted in keeping the incision clean by washing out with carbolized water. The result was recovery without an unfavorable symptom.

I find recorded in my case-book five amputations of the lower extremity—one, the lower third of the thigh—in which I did not perform the operation myself, but aided in it, and then took charge of the after-treatment. One case of Syme's amputation—two cases in which Syme's amputation was made, but the tibia and fibula were found so much diseased as to necessitate

amputation in both cases about two inches higher up the leg. One amputation just below the knee, in which case the patient, being a young man, no fever followed the operation, and if my memory serves me aright, was in town in less than three weeks, walking on a peg-leg of his own make.

I find two amputations of the arm—one just above the elbow, and the other performed June 25, 1884, for one of our best citizens, about two inches below the shoulder-joint.

I find, also, two cases of amputation of toes, and three or more of fingers.

One case of amputation of the breast occurs in my record book. The result in this case was primary union in nine-tenths of the wound, and a rapid cure of the remainder, but a return of the disease in a few months in the site of the wound, and the death of the patient from the original disease—cancer.

My record shows one case of removal of a cystic tumor from the mammary gland. Three operations—secondary—for lacerated perineum are recorded—all cured—two of them having been tested by giving birth to children within twelve months after the operation. I find also one case of laceration of the cervix, bilateral, in which one side was completely restored, and the other to about two-thirds of its extent, leaving only a slight notch on that side, reducing the depth of the uterus from 4½ to 2¾ inches. I find one case of the excision of five inches of the radius, when the shaft had been shattered by a pistol ball. One case of traumatic aneurism of the superficial palmar arch, cured by ligation after pressure had failed. Two cases of hair-lip—about twelve circumcisions; as many or more operations for fistulæ; one fibroid polypus, large enough to fill the vaginal canal, and protrude through the vulva. The removal of this tumor was followed by profuse hemorrhage, which was controlled by large pledgets of cotton saturated with carbolized alum water and used as a tampon. When the cotton was removed, 36 hours afterward, there was neither odor nor hemorrhage after they were removed, but vaginal injections of carbolized water, as hot as could be borne, were used. One mucous polypus was removed, growing high up in the cervical canal. A number of cases of excision of tumors are recorded. One as large as an adult head, and one a fatty tumor weighing several pounds, removed from the shoulder of an old lady, aged 68 years. One case of extensive destruction of the skin and muscular tissue of the forearm by a burn from friction, in a man about 60 years old, illustrated to my mind the value of antiseptic cleanliness. In this case the forearm had been caught in the wheels of a rapidly revolving pulley, and subjected to the friction of a belt. After the separation of the sloughs, which was hastened by the application of charcoal poultices and the use of the dressing forceps and scissors, the temperature at no time went above 99½°, nor the pulse beyond 84. The case progressed slowly and steadily to recovery without a single untoward symptom. I might also mention cases of hemorrhoids operated upon in other ways than the one I now use, viz., carbolic acid injections. I might further call attention to an abscess of the liver, treated, after incision, with antiseptic washes, but I have occupied the time of the society long enough.

I desire, however, to revert to the second case of amputation of the arm referred to as having been performed June 25th last. Here the arm had been crushed by being caught by a band, and wound round a pulley of a steam thresher. The bones of the forearm were broken in two, and the humerus shattered just above the elbow. The muscular tissue had been reduced almost to a pulp, and the cutis destroyed to within 2½ inches of the shoulder. The patient suffered much from the shock of the injury, and when operated on, 24 hours later, came near dying from shock on the table. By the free use of alcohol, ether, belladonna, and digitalis hypodermically, he rallied in the course of 36 hours, and from that time on till complete recovery, his pulse did not exceed 80, and the temperature did not rise above 99°. In two months the gentleman was engaged in hauling lumber to this place.

My management of these cases has been almost uniform. Cleanliness was impressed upon the attendants, nurses, and *patients* as of first importance. All discharges were removed twice a day—oftener if needed—and the circumjacent parts washed with a carbolic solution of the strength of ʒj. to ʒviij. of water. After thoroughly cleansing everything, avoiding any unnecessary application of the wash to the wound itself, the whole was then enveloped in a soft, clean, cotton cloth, saturated with carbolized cosmoline. In some cases I used Labarraque's solution, in others Listerine, and in others potassium permanganate; but my preference is decidedly for carbolic acid. In addition to the local treatment of wounds from operations, I nearly invariably keep my patients under the influence of a tonic. Usually I resort to tr. ferri perchlor. in full doses.

I would repeat that in all my surgical practice, I have never yet had a death. The most tedious

of all my cases was one of septicæmia, resulting from a case of pistol-shot wound of the thigh, in which the femoral vein had been divided and the hemorrhage controlled by a pledget of carbolized cotton pressed into the enlarged wound, and kept in place by sutures. Through some misunderstanding as to who was to take charge of the case, the cotton was not removed as soon as it ought to have been. At any rate, septicæmia resulted in this case, and for two months the result was uncertain. Under the free use of iron, quinine, arsenic, strychnia, and whisky, internally, and washing out the whole track of the ball with carbolized water, solutions of permanganate of potash, and other disinfectants and antiseptics, in spite of large abscesses and small ones nearly innumerable, the patient recovered, and is now a comparatively strong man, the wound having been inflicted nearly two years ago. Hoping, gentlemen, that you will accept this as a discharge of the task assigned me, I close.

ON HYSTERIA.

BY DR. S. M. WARD,
Of Ellenville, N. Y.

The history of hysterics is very interesting, and withal instructive, as showing how the conception of it has changed through the centuries. Time was when a person attacked with it was thought to be possessed with a devil, perhaps more than one. To-day, though demoniacal influence is no more thought of, and it has been relegated into the vague realm of "neuroses," it is in reality as far from being understood as in the olden time, when it was ascribed to "the facing of the 7,425,926 devils of hell." (Richet.) It will not do, relying on the etymological significance of the word, to ascribe the phenomena so well known as "hysterical," to a diseased condition of the womb, and to separate it into the classes of Cullen: H. chlorotica, H. leucorrhœa, H. menorrhagia, H. libidinosa. Granting that it most often occurs in the female sex, no modern authority teaches either that it is always due to some uterine affection, or that it invariably is found in persons to whom, *sui generis*, such an organ belongs. Russell Reynolds says: "Hysteria is not necessarily associated with disease or derangement of the generative organs of either sex; such association may and does commonly exist, but the true nature of the malady may be overlooked if regard be paid exclusively to that particular condition." Skey, indeed, goes so far as to say that it is to be doubted whether there exists ever such relation between the symptoms and the uterus as to justify the name at all. Bartholow says: "That derangement of the female sexual organs, especially of the uterus and ovaries, is the essential cause of hysteria; is an opinion no longer entertained in any quarter." But the term has the sanction of long-continued usage, and therefore, though very misleading, it will probably be employed for many years, at least until we know more about it than at present.

Every one knows what is meant by "being hysterical," as this term is commonly used. Even to the lay mind, the phrase carries the picture of a chlorotic girl at or about the age of puberty, whose favorite diet is chalk and slate pencils, whose mental characteristics are not markedly brilliant, and who frequently has a "fit," during which she executes a variety of fantastic movements, tears at her throat, frightens her relatives by insisting on her immediate demise, and finally ends up by passing a large quantity of limpid urine, and in a few days is all right. With some modifications, this idea of hysteria is the one I have found generally prevalent in the minds of practitioners of medicine even. Now, while in very many cases this is no doubt correct, while it is true in the majority of instances, the classic description of an hysterical patient and the convulsion, handed down through a long line of text-books, is a good one, still there are many cases which do not accord with it; nay, which never have a convulsion, and yet which admit of no other explanation, and which can be called by no other name than hysterical. What then do I mean by hysteria? I mean a condition of the central nervous system, especially of that part of the cerebrum which has to do with introspection, the pathology of which is not known but is usually anæmia, which in different persons produces different disorders, motor, sensory, and psychic, said disorders commonly partaking of the nature of the diseases to which any special part is liable to be affected. In fine, I should call hysteric any symptom arising either in the course of another disease, or *per se*, which was unaccompanied by the concomitant circumstances usually attending such symptoms, which closest questioning, objectively and subjectively, failed to account for, and which, after an ordinary length of time, persisted, unchanged by medication, yet not affecting either the general health or other parts by contiguous or reflex influence. I am aware that the term "ordinary length of time" is objectionable, as "when the attention is strongly fixed on an organ of the

body, functional disturbances of it ensue, and finally structural changes may be induced." (Bartholow.) But to take an individual instance, when a patient vomits blood day after day without becoming anæmic or otherwise showing signs of disordered health, I cannot, after "an ordinary length of time," consider the symptom as other than hysteric, though I can readily perceive how this continuing for months may at last induce "structural changes." I know very well that in thus writing of and defining hysteria, I am encroaching on the ground occupied by neurasthenia, nervous exhaustion, or other complaints of like nature, which are just now in the heyday of life and vigor, but if we can speak of an hysterical joint and hysterical breast, I do not see why with equal propriety we may not apply the term to the multitudinous symptoms which many patients causelessly complain of, even though there may never have been an attack of vapores. If, therefore, I confound these several conditions, or seem to, I do it not unkowingly.

To the practical man it is of decidedly more importance to know the means by which true disease and no disease may be separated, and how the disturbed intellection may be so treated as to preclude the occurrence of these "nervous spells," or general "nervous" condition, than any discussion, either as to etymological derivations or strict definitions, desirable as these latter may be. I cannot hope to succeed where so many have failed, for by whomsoever an attempt at a complete diagnosis is made, come the words of Sydenham: "Hysteria resembles most of the distempers wherewith mankind are afflicted;" or stronger, the opinion of Skey, "That any part of the body can be the seat of such local derangement, either of the nerves of sensation or of motion, as shall accurately represent real disease of that part, when no disease, properly so-called, really exists." And, as if not making matters complicated enough, patients with real disease may have hysteric symptoms developing in its course, and then, as Dr. Conolly says, "they impart (to the real disease) a peculiar hysteric modification." Hysteria will simulate every disease in the nosology, from tabes to epilepsy and from phthisis to urticaria. Take, for example, the following instructive case reported by Dr. Walker in the *Archives of Medicine*, and copied in *Medical Gazette*, 1883. His patient was a pregnant woman in the eighth month when labor set in. On the third day she began to complain of headache, and suddenly became blind. She was in this condition when the Doctor saw her. He says, "She had passed only a few ounces of urine in the preceding twenty-four hours. Here then was a patient in the first stage of labor taken suddenly with pain in the head, and following it complete loss of vision." Certainly, as he remarks, "these symptoms would suggest impending puerperal convulsions." The doctor, however, had seen this patient before, and there was a chance to throw out the diagnosis of true puerperal convulsions by watching patiently and carefully. But hysterical symptoms are not always displayed as outbreaks of the nervous system, in which cases we are only too readily, for a time, deceived. But appreciable things, abnormal conditions realized by our senses, and abnormalities detected by our so-called "instruments of precision," do occur as symptoms of hysteria, and have no more significance, as I believe, than the globus hystericus. For example, hæmatemesis. This quite frequently occurs. All readers of Watson's Practice will recall his description of a girl who "vomited day after day potfuls of dark blood." I remember the case of a young lady, a blonde, aged about 17, just the complexion and build to suffer from gastric ulcer, whom I treated for a week or so for that affection. Finally, I gave up in disgust, when I found her developing undoubted hysterical symptoms, such as formication, numbness, and a strong inclination to lie. This girl vomits blood to-day, I was about to say whenever she chooses; but she looks well, is not anæmic, attends parties, etc. She has had since the first attack of hæmatemesis, hemichorea, paralysis of the muscles of phonation and of one arm; they all appeared suddenly, and disappeared as suddenly as they came. I don't believe that girl had an ulcer of the stomach. I believe the whole thing was hysterical in its origin, though I have no quarrel with any one who wishes to call it anything else. I have watched her now nearly two years, and my opinion is as above. Phthisis even may be feigned. Says Dr. Faber, *Medical Record*, reprinted from *Centralblatt für Gynacologie*, October 27, 1883: "There is in young women often a condition simulating phthisis. There is cough, with expectoration, and even spitting of blood. Physical examination reveals dullness at the apex (usually on the right side), feeble respiration, and occasional rales. * * * Sometimes, however, there is elevated temperature, but it is only transitory, and regular evening exacerbations are never observed." Peritonitis and colic are also simulated. Says Dr. Watson: "You will have a patient complaining of pain over the abdomen, aggravated by the slightest pressure, hot skin, quick pulse, and furred tongue," and

for these symptoms he says there may not be the slightest cause, so far as inflammation is concerned. Of colic Dr. Connolly (*Encyclopædia of Practical Medicine*) remarks that "the worst cases of colic I have ever seen have occurred in cases of hysteria."

I once saw a young married woman who presented all the symptoms of opium poisoning, though she had taken none of that drug. She was only in a stupor following an attack of hysterical convulsions. She lay in this state for 28 hours taking nothing in the way of nourishment, respirations from eight to twelve per minute, pupils contracted and muscles completely relaxed. After this state passed off she became totally deaf, and when she talked she drawled the words so that there were long pauses between them. Paralysis, aphonia, dysphagia, are also among the conditions which are noted as occurring in patients who really are having hysteria. But it is in the joints and among the vertebræ that hysteria loves to dwell. For some reason or another, the knee and hip joint and the spine are "spots of election" for hysteria to show itself. Sir Benjamin Brodie says: "I do not hesitate to declare that among the higher classes of society at least four-fifths of the female patients who are commonly supposed to labor under diseases of the joints labor under hysteria and nothing else." Skey, who quotes him as above, adds that he "would venture to enlarge this statement as regards the upper classes." Further on he says: "In reference to spinal affections I unhesitatingly declare that real disease is not found in a greater proportion than one in twenty, and even that is a liberal allotment." "I quote here as instructive the record of a case reported by Dr. Gibney in his article on *Neuroses of the Hip*, *Med. Gazette*, December 22, 1883. A girl aged 19 came to me on crutches, giving a history of good health up to January, 1880, when she had a fall followed by great pain in her knee. This shifted to the hip two weeks later, and she walked lame, suffering much from fatigue. For the past six weeks she has not been able to walk except with crutches. She has been very restless nights, and has lost flesh." His description of her is: "She stands resting all of her weight on the right limb, the left foot not even touching the floor; the left limb is advanced and rotated outwards, while the pelvis is tilted to this side. No infiltration about the joints, thighs equal in size, the pain is referred to the left loin, the spine, and the anterior surface of the knee. Absence of joint tenderness, but muscular tenderness with pain on pressure along sciatic nerve. The thigh can be almost flexed without pain or resistance. Indeed, all the movements are normal, save extension, which aggravates the pain. There is formication about the sole and ankle, with a moderate degree of dorso-lumbar tenderness." The doctor threw out joint disease, though it must be confessed it looked like it. He applied a fly blister to her spine several days, and on the tenth day she got up and walked across the floor, and by the first of August all symptoms of disease had disappeared.

Dr. Geo. Harlan, in a paper published in the *Medical News*, November 29, 1884, relates a case of hysterical monocular blindness, with violent blepharospasm and mydriasis, all relieved by mental impression. This case had followed a fall which had been diagnosed as a dislocation of the elbow, leaving her with the joint stiffened and her arm flexed at the elbow. Drs. Harlan and Cohen having already experimented on her with the Charcot magnet, and with one of their own device, made of wood and only tipped with metal, with the effect of curing the blepharospasm, now tried it on the biceps muscle, which is described as being in "extreme spasm," the "tendons standing out like whip-cords." "The spasm relaxed at once."

Hysterical deafness, hysterical blindness, hysterical anæsthesia, and hysterical hyperæsthesia, have all been noted. Disorders motor, disorders sensory, disorders vegetative, are all simulated by this Proteus. If then hysteria in its manifold manifestations is likely to take on the semblance of most diseases, the question comes to the mind of the physician, how shall I diagnose between it and true disease? Speaking now for myself, I state frankly that I have often made mistakes. I doubt if that physician lives who has not been fooled and diagnosed some organic lesion, some true disease, where none *per se* existed. To make a diagnosis of hysteria is not always easy, nay, is often difficult. Ordinarily the hysterical spasm, the attack of vapors, is diagnosed in a few minutes without difficulty. There is something about it that stamps it distinctively, though its cause may be beyond detection. We may say, generally speaking, that in hysterical convulsions there is always an effort on the part of the patient to attract attention and create a sympathetic feeling in the minds of the bystanders, and she is usually much more quiet if let severely alone. Then, too, absence of any history that would give rise to an attack of such seeming severity, aids us. This is what I usually rely on—this and careful watching and waiting;

a few months often throws a good deal of light on this class of patients. But to diagnose those cases of hysterical joint and breast, of hæmatemesis and vomiting, of anæsthesia and blindness, not to mention a hundred other conditions, "ay, there's the rub."

Again, the history of the case must be the main reliance. But we shall be fooled, fooled by the thermometer, fooled by electricity, fooled by the stethoscope; time usually solves the difficulty. If these affections complained of so pitiably, and of such seeming severity—and I have never known a hysterical patient to complain of any symptom or set of symptoms which, on the surface, did not seem dangerous and urgent—go on for days without affecting any other organ or the general health, we are, I think, justified in calling them purely neurotic, and dismissing all thoughts of danger from our minds. But, alas! thus dismissing the thoughts of danger does not get rid of the patient, who, with a pertinacity worthy a better cause, will swallow incredible quantities of drugs, and submit to any amount of blistering and firing to get relief from a complaint which exists only in a disordered imagination. To the mind of the physician, when treating either the convulsion of hysteria, or this other class of cases, there has often come, I doubt not, that sentiment which Shakespeare applies to wine: "If thou hast no other name to be known by, let us call thee devil."

Weir Mitchell has told us well and truly how to deal with some of these patients, and his "rest treatment" and forced feeding are well worth a trial. Where there are local manifestations, fly blisters, washes of lead water, and opium and poppy poultices, made either of the leaves, or what I have found very efficacious, made of the sediment or leavings after the manufacture of laudanum, do good, especially in that condition known as "hysterical breast." The Charcot magnet—probably the Harlan-Cohen magnet is just as good—will frequently yield good results. Little medication is needed; the less the better. Hyposulphites of lime and soda, and the chloride of gold and soda, are good general and special tonics; as a cathartic nothing equals a pill of aloin, belladonna, and strychnia. I do not like to use the sedatives in such cases, but if forced to, prefer a mixture of valerian on account of its bad smell, assafœtida for the same reason, bromide of potassium or soda, made up with the elixir of sumbul. Rarely are we forced to use opium. I have seen though the best effects from a pill of hyoscyamus, and camphor, combined with a minute dose of morphia.

As to the treatment of hysterical spasms, I am favorable to the use of emetics. I think it is Dr. Goodell who says that "when a patient vomits she can't do anything else." An emetic of sulphate of zinc or ipecac is efficacious in quite a number of cases. I am more favorably inclined toward this way of treating the hysterical convulsion since reading Dr. Turner's report of four cases, MEDICAL AND SURGICAL REPORTER, January 17, 1885, from the *Texas Courier-Record of Medicine*. I believe this treatment, followed by some sedative, to be *the* treatment for a large majority of these cases. It goes without saying that all disturbing influences should be removed, and that weeping friends and anxious relations should be rigorously excluded from the room.

I do not know that I have written anything new in this article. My purpose has been to draw the attention of practitioners to a class of cases—hundreds of which exist—which are often overlooked and in which mistakes in diagnosis are often made.

HOSPITAL REPORTS.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL.

BY HORATIO C. WOOD, M. D., LL. D.,

Professor of Diseases of the Nervous System in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M. D.

Senile Gangrene—Senile Dementia—The Treatment of Old Age—Polio-Myelitis—Probable Apoplexy.

GENTLEMEN: I wish in the first place to show you two cases, neither of which are open to therapeutic measures, but which will serve as the basis of a few remarks in regard to the treatment of a very frequent and important condition, namely, old age.

We have here two types of the results which may be considered as belonging to old age. This man is 77 years of age, and was able to work until sixteen days ago, when on account of some peculiar sensation in the left foot, he applied a mustard poultice to it and went to sleep, waking up at the end of eight hours to find the foot in a condition similar to that which it now presents. At no time has there been any pain connected with this. This affection does not usually come on in this painless manner. More commonly it begins with a horrible, stinging pain, which, as a rule, is felt in the neighborhood of the large toe. If the part is examined at once, it will be found to be red or of a peculiar dusky or livid hue, and in the course of a few hours or in a day or two, it becomes black, and there is developed the condition ordinarily spoken of as dry gangrene. Here, as you see, we have an illustration of dry gangrene, although this is slightly more moist than in the typical condition.

The cause of the development of this affection

is always failure of circulation in the part. Examining the pulse in this case, I find it irregular and feeble, showing that there is cardiac failure. The arteries are hard, and have an irregular, beaded feeling. In other words, there is atheroma of the arteries. The condition of the foot has resulted from the failure of circulation, due partly to heart failure, but chiefly to atheroma of the vessels.

Examining the part closely, it will be observed that there is a tendency to the formation of a line of demarcation, but it will also be seen that the black discoloration is spreading above this line.

The only thing to be done in a case like this is to give opium in small doses frequently repeated, so as to make the patient comfortable and to wait for nature to effect the final result. There is no use in attempting any surgical procedure. If the leg were amputated, sphacelus might appear above the seat of operation, if, as would be more probable, the man did not die from the shock. Again, secondary hemorrhage is apt to occur, and the primary hemorrhage may be severe and even uncontrollable. The vessels are hard and rigid, and break when the attempt to ligate them is made.

Senile Dementia.

In this man we have what may be considered senile dementia. It is easy to see from his answers to my questions that there is a total failure of memory, and that the history which he gives is a mixture of old fleeting reminiscences of his past life with his present impressions. Along with the mental failure which usually begins with weakness of memory, there is failure of muscular power, so that there is inability to walk.

So far as treatment is concerned, there is little or nothing to be done. The only remedy required is morphia in doses sufficient to make him comfortable. The diet should be carefully regulated, and then we wait the natural result.

I wish to say here, taking these cases as an excuse, a few words in regard to the management of old age. Old people will often be among your most profitable patients, and you will be frequently called upon to give advice in regard to the prolongation of life. In carrying this out, there are three ideas to be considered. I am now supposing that you are treating an old person with abundant means. The first thing is protection from all untoward influences. A large proportion of those who are said to die from old age, really die from the effects of exposure, and it must be remembered that the term exposure is relative. What in a young man may be nothing, may to an old man be a serious matter. One of the most perfect protections from cold is a buckskin jacket. Every person who is 75 years old, and whose physical powers are beginning to fail, should be put in a buckskin jacket, extending from the shoulders to the hips. There is no flannel, silk, or anything else, which will compare with buckskin in preventing chilling of the body. Chilling of the surface in an old person means a rush of blood to internal organs, where from weakness of the vaso-motor system and the condition of the vessels, contraction cannot take place, and the congestion is even apt to be folfowed by pneumonia, or other inflammation must result.

These patients must be guarded especially against exposure to wind. Damp is feared by many and credited with causing many affections, but where damp has slain its thousands among the aged high winds have slain their tens of thousands. This caution applies not only to old age, but to all cases in which there is a tendency to cardiac failure. Some time ago a noted clergyman of this city came out of church and started to walk to his residence in the face of a northwest wind. He had gone only a square, when he stopped, seized a railing, gasped a few times, and was dead. If he had not faced that wind in his exhausted condition after prolonged public speaking, he probably would have been living at the present time. High winds chill the surface, oppress respiration, and are exceedingly disastrous to the life of any person whose circulation is without power.

I need not say anything in regard to preserving the nervous system from all shocks. Fortunately, as the intellectual powers become blunted, so do the emotional energies, and the old man is not so susceptible to emotional disturbances as is the man whose nervous system is unaffected with age. All accidents are of course to be carefully guarded against, and all excessive bodily or mental exercise. Remember, excessive is a relative term, and for the weak excessive may be very little. Rest is of great importance; indeed, old people should spend many hours in bed.

The next point is in reference to diet. The food should be light but nutritious. Stimulating food should be withdrawn. Meat should be used but sparingly. What we start with, to that we finally come in this life. Man, who begins on milk, should in the last years of his life make milk the chief article of his diet.

Finally, in regard to medicines. There are two drugs which are of the greatest importance to old persons. These are alcohol and opium. If your patient, approaching his eightieth year, can be made an opium eater, you will in the majority of cases protract his life many months or years. In these cases the opium is to be used carefully, and in such a way that the patient can not rapidly increase the dose of it. A number of years ago I was called to see an old man. He was thought to be dying at that time, but he is still alive at 84. For the past ten years he has taken an opium suppository every night, but beginning with one grain, he has now only reached two and a half or three grains. When he is restless, or there is a tendency to diarrhœa (for he has suffered with enteritis for a number of years), he takes two or three suppositories. Unless the patient has more than the ordinary will power, it is essential that the opium be administered by some one else.

Again, the use of alcohol in old age is of great importance. Every old person should take alcohol in some form, three or four times a day. It should be given at meal time. I think that it makes little difference whether dilute brandy or whisky, or some of the wines are selected. The wines are more palatable to some. It is also important to study the digestion of the patient, for in some it is found that the diluted liquors answer best, while in others the wines are most serviceable.

This is but a brief sketch of the measures to be employed to prolong life, and I may add that it is essential that in the old any attack of disease must be stopped in its incipiency, and for this purpose there is nothing more efficient than opium and putting the patient to bed.

Chronic Polio-Myelitis.

A glance at the exposed shoulders of this man, at once shows that there is distinct wasting of the left shoulder. There is a peculiar flatness at the point of the shoulder, which is characteristic of wasting. The left arm is much smaller than the right, but the forearm is not affected. When the attempt to raise the arm is made, there are peculiar fibrillar contractions of the deltoid and upper-arm muscles, with tremor. Wherever there is wasting of the muscles with the history that this has developed slowly with loss of power and fibrillarly contractions, you have almost always a case of chronic polio-myelitis, or progressive muscular atrophy. In true chronic myelitis, there is no pain. In a case of alleged paralysis, the first question to be decided is whether the paralysis is due to loss of power or to the pain which is caused by movement. The man moves his arm without feeling pain, and extensive passive movement can be made without causing pain. The fibrillar contractions are quite marked during passive movement. Sometimes these quiverings can be brought out by tapping the muscle, but such is not the case in this instance. Do not be misled, however, and as soon as you have this fibrillar contraction with wasting of the muscle, conclude that you have a case of progressive muscular atrophy; for in wasting diseases like phthisis, tapping the muscles will frequently excite fibrillar contractions. The significant fact in cases of progressive muscular atrophy is the localized nature of the change. Where there is this localized wasting of the muscle, which cannot be attributed to rheumatic inflammation, neuritis, traumatism or overwork, the chances are that it is due to chronic polio-myelitis. The probabilities are therefore that this man is suffering from chronic polio-myelitis, or chronic muscular atrophy.

Infantile Paralysis.

In connection with the previous case, I wish to show you this man, twenty-eight years of age, who has been unable to walk since he was one year old. His legs are cold, and as you see, blue and much wasted. Without spending much time on the case, I will say that we have here the results of an acute attack of polio-myelitis, that is, what is ordinarily known as the essential paralysis of children, or infantile paralysis.

Polio-myelitis is a disorder of the large cells of the anterior cornua or gray matter. It appears in two forms; first, the acute variety, very common in children, but rare in adult life, although occasionally occurring, and known as infantile paralysis or essential palsy of childhood. In the second place, there is the slow chronic form of the disease, rare in childhood, but occurring in adult life, and producing the disorder which we have just seen, viz., progressive muscular atrophy.

The present case is also interesting as showing that not only is the nutrition of the muscular tissue dominated by these cells in the spinal cord, but that the nutrition of the bony system is also dominated by them. It can be readily seen that this man's legs are shorter than they should be. Where only one leg is affected, there is often a difference of one or two inches in the length of the limbs.

There is, of course, nothing to be done in the way of treatment. In the early stages of acute essential palsy, something can sometimes be done to aid in arresting the disorder; but here the storm has passed, and the spinal cord is lacking in certain elements which can not be replaced.

Probable Apoplexy.

This man, forty-six years of age, comes to us with the history, that he has all his life worked hard as a laborer; that he has used alcohol in excess; that fifteen years ago he had a chancre, followed by well-marked secondaries; and that last March (eight months ago), he was attacked with what is said to have been rheumatism, and came to the hospital. He was relieved and discharged. He remained in his usual health, with the exception of constant headaches, until ten days ago, when the present ailment developed.

Early on Monday morning, while working at the fire in a stove, he felt as though he had been struck on the top of the head. He did not fall, but noticed that he could not talk distinctly. He then went to bed; and the following day, on attempting to rise, found that he was paralyzed. The headache of which he speaks has been pretty constant; sometimes it would come on suddenly, continue for a few minutes, and suddenly go away. He also had noises in the ears.

The first point in the diagnosis is to determine, if possible, whether this man has had an apoplectic attack, or whether he has palsy resulting from cerebral syphilis. At times, the diagnosis between these affections is very difficult, and occasionally it is impossible at first to decide whether there is a clot in the brain or whether the paralysis is the result of congestion and softening around a syphilitically inflamed portion of the brain.

Remember that syphilis is one of the great causes of atheroma, and also that the use of alcohol is another important cause of the same condition; therefore, where there is such a history as has been elicited in the present case, the existence of atheroma is to be at once suspected, and examination of this man's arteries confirms this suspicion. Again, when I place my ear over the præcordia, I find that the second sound has a peculiar clanging character, which is sometimes said to be associated with hypertrophy of the heart, but which I believe is almost pathognomonic of atheroma of the aorta. When you get an aorta that is atheromatous, excessively rigid, and lacking in elasticity, but in which there is no true aneurismal dilatation, you find this peculiar sound, which seems to me to be due, at least in part, to the wall of the aorta reinforcing the clanging sound of the valve, just as the old-fashioned sounding-board in the Quaker meeting-house reinforced the voice of the speaker.

There are, therefore, in this man, the conditions which predispose to apoplexy; but we have these same conditions present in almost all cases of syphilis. For practical purposes, however, I think that we may consider the diagnosis of apo-

plexy reasonably certain when we find that the paralysis develops in the course of a few minutes and is complete; while on the other hand, in a person suffering with syphilis, in whom the paralysis develops in the course of a few hours, and is not complete, and has been preceded by headache or other symptom of cerebral disturbance, there are grounds for believing that no clot is present in the brain, and for hoping that the patient will recover from the paralysis under the influence of anti-syphilitic remedies.

Applying these rules to the present case, it is found that the paralysis was preceded by headache, and according to his statement, the paralysis did not develop immediately. If we could be certain that this statement was correct, there would be grounds for considering that the palsy was the result of syphilis. It must be borne in mind, however, that we are dealing with a person who has not been in the habit of making close observations, and no person after an attack of this kind is in a position to make correct ob servations. We cannot determine positively whether the paralysis was complete or not at the time he first noticed it, but at the present time it is complete; and this fact, taken in connection with the distinct description of the feeling of a blow on the head, leads me to believe that the history in regard to the rate of the development of the paralysis is incorrect, and that the man was paralyzed shortly after being put to bed, although it was not recognized at that time.

I have seen a number of cases of apoplexy in which this feeling of a blow on the head was very marked. It is not always present, but is often the result of the rupture of a blood-vessel of the brain, with the sudden effusion of blood. Some years ago, I saw an old gentleman who had received a great shock to the nervous system while at dinner at a friend's house. He left the table and went to his own house. An hour or two later, he suddenly went to the front window, threw it open, and yelled "murder" at the top of his voice. Passers-by rushed to the door and forced their way in, and going up stairs, found the old gentlman lying on the floor, partially conscious. He was just sufficiently conscious to assert that somebody had struck him a violent blow on the right side of the head. He rapidly grew worse, and died in the course of a few hours from well-developed apoplexy. At the autopsy, a clot of blood was found just at the spot where he said the blow had been struck. If that man had been situated somewhat differently, or if there had been a quarrel, there would have been strong legal evidence that the man had been hit. The man had never been hit, as it was perfectly clear that he was in the room by himself and suddenly fell to the floor.

After a stroke of apoplexy, there is also great confusion of mind. Some years ago I made a curious test of this. An elderly gentleman was seized with a stroke of apoplexy, which passed over, and he came out apparently entirely rational. I determined to test his mental condition. He could see only with the left eye, having a glass eye on the right side. I said to him: "Has this thing affected your sight?" He replied that he thought not. I then told him to cover the left eye. "My God," he exclaimed, "I am going blind." There was that mental confusion which made him forget for the moment that one eye was really blind. This mental confusion is an important matter in medico-legal questions, especially in regard to wills.

I think that in the present case the mental confusion was such that although the paralysis was present at first, the man did not recognize its existence, and that we have a case of apoplexy to deal with.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

(*Concluded from page* 432.)

At first no thought was entertained that did not suppose the tumor was in some way associated with the liver. Abscess, lardaceous disease, and cancer, however, were excluded by the absence of the other essential symptoms, and it was finally thought that we had most likely to do with a hydatid cyst. This was based upon exclusion of an obscure sense of fluctuation at the most prominent part of the swelling to the right of the umbilicus. Accordingly, on December 12, I introduced an exploratory needle to the depth of 4 inches at this prominent spot. A few drops of bloody fluid only were drawn, which showed, upon microscopic examination to contain no distinctive elements. Forced by the results of this operation to abandon the liver as the seat of disease, the kidney was then selected as its probable seat, although repeated examinations of the urine had shown that while it was somewhat diminished in quantity, it was otherwise normal. It was ascertained, however, twice, that it did not contain iodine after the administration of 5 gr. of this substance. Soon after the 1st of January, 1885, his stomach ceased to retain food, after which he declined more rapidly, and died January 16. As the disease progressed, the tumor presented through the abdomen walls, and also to palpitation, a more uneven outline, which could not, however, be described as nodulous. At the autopsy there was noted on inspection œdema of the right leg, and a tumor occupying the space between the ribs and the ilium on the right side, extending three inches beyond the median line. It was bumpy or uneven. The hand could be pushed up a short distance between the ribs and the surface of the tumor. On section, the visceral and parietal peritoneum appeared normal, and the omentum partially covered the abdominal contents, but was adherent only in the right iliac fossa. The colon was displaced, and commencing at its head in nearly the normal situation in the right iliac region, extended upwards and to the left, along the border,

The right kidney was found closely applied to the front of the tumor, and so closely that it was at first overlooked, and the tumor thought to be one of that kidney. It was compressed, flattened, thinner than an average hand, and smaller in circumference than the normal organ. The minute examination of the right kidney revealed a very interesting condition. The tubules bore evidence

of the compression to which the organ had been subjected. The cells were everywhere compressed, and the tubules narrowed. There was a slight hyperphasia of intertubular tissue, especially about the malpighian bodies. The ureters and bladder were normal. The pericardium and heart were normal; the left pleural sac contained a small quantity of bloody serum, and there were a few trifling adhesions.

The left lung contained along the outer anterior edge of the upper lobe, three inches from its base, a moderately firm nodule one-half inch in diameter, pinkish-grey on section, and projecting above the adjacent cut surface of the lung. Two similar reddish-grey nodules were found on the lateral aspect of the lower lobe of the lung, about four inches from its base. They were about an inch apart, about $\frac{3}{4}$ of an inch in diameter, and projecting as much below the lung almost as sessile tumors. There was another small tumor on the posterior of the base of the lobe. There was more than the usual adhesion between the two lobes of the lung. The lower lobe of the right lung was much adherent to the diaphragmatic as well as the thoracic pleura. There was a warty excrescence about $\frac{3}{4}$ of an inch in diameter, attached by a small pedicle to the upper lobe, and a still smaller one at its anterior edge. The nodules in both lungs were encapsuled. The tumor itself was lobulated, and occupied the entire right side between the edge of the ribs and the pelvic bones, and extended even to the left of the median line in the neighborhood of the umbilicus. It presented the same obscure sense of fluctuation, and upon section of the lobes of which it was composed, each one of which appeared to correspond with an original lymphatic gland protruded in its central position, and presented a uniform pinkish-grey surface, of moderately soft but by no means defluent consistence. The microscopic examination revealed throughout the structure of a sarcoma of the tumor mass, to the region of the spleen, where it turned inwards and made two or three twists along the left side of the abdomen. The right side of the liver was slightly enlarged, but the organ was otherwise normal. There were no adhesions whatever, and its surface was smooth. It was unusually firm on section, and the lobules seemed to have been compressed.

The spleen was slightly harder than usual, but otherwise normal. The pancreas and stomach were both displaced backwards and to the left. The former was normal, as was also the latter, except that there were a few punctiferous extravasations in its cardiac end.

The left kidney was found buried beneath the left portion of the tumor, and appeared one-third larger than normal. The capsule stripped off easily, leaving a smooth, dark-red surface. On section the cortex seemed slightly broader than in in health, and was darker in hue. Thin sections, studied microscopically, showed a normal histiology. The organ was simply hypertrophied.

Dr. J. H. Musser asked whether the tumor moved synchronously with respiratory movement? for if connected with the liver such would be the case. He would also like to know whether hydatid fremitus, so-called, were present, and by what sign was the diagnosis of hydatid tumors made?

Dr. Musser also asked the position of the left lobe of the liver, for if displaced it would have indicated possible dislocation of that organ, a condition well known to ensue in tumors of the right kidney on account of the direction of their growth. He thought a tumor of the right kidney could have been eliminated by the direction of the growth of the present tumor, viz., downwards and outwards.

Dr. Tyson said that with regard to its mobility it was certainly a fixed tumor. There were no signs of hydatid fremitus, this diagnosis having been arrived at by exclusion, and the obscure sense of fluctuation which could be detected.

Dr. Shakespeare said there was also a small lobulated tumor on the left side of the vertebral column, entirely covered and concealed from view by the fibres of the head and belly of the left psoas muscle. He suggested that the origin of the large right-sided tumor may possibly be explained in the same way; for not only the kidney and ureter, but also the large vessels were pushed forward and to the left border of the tumor mass, and no remains of the head or belly of the right psoas muscle could be found. The location of the retro-peritoneal glands of the lumbar region is mainly in front of and around the main vessels. They are far in front of the psoas muscle, and can with difficulty under all, the circumstances of this case, be regarded as the origin of this large tumor.

Dr. Shakespeare would ask Dr. Tyson whether the pain complained of was referred to the anterior crural or the sciatic nerves.

Dr. Tyson replied that he could not be certain whether the pain in the left leg was along the distribution of the anterior crural, but thought that it was. Certainly in the right leg the pain pursued the course of the branches of distribution of the sciatic nerve.

Larynx, Trachæ, Lungs, and Heart, from a Case of Anginose Diphtheria.

By W. A. Edwards, M. D.

This case occurred in the practice of Dr. William M. Powell, of this city, at whose request I saw the little patient, and for whom I made the post-mortem examination.

Lizzie P——, aged two years, of a strumous diathesis, was first seen by Dr. Powell on February 2, 1885, when she appeared to be suffering from catarrhal fever, but at his next visit, two days later, a diphtheritic membrane was easily recognizable over the uvula, tonsils, and half arches.

The child grew worse, the membrane increasing, the cervical and post-cervical glands enlarging, pulse running high, hyperpyrexia, and the case rapidly assuming a malignant aspect.

On last Sunday (the 8th), after consultation, the plan of treatment was slightly changed, apparently to the child's benefit, as she improved until about eight in the evening of the 11th, when her respiration was noticed to become fish-like, extremities cold, pulse high and thready, increasing apnœa, and sudden death at 9:30 p. m. Post mortem fourteen hours after death.

Female child, fairly well nourished, in the right eye is to be seen a corneal opacity, probably the cicatrix following phylectenular keratitis.

The larynx, unfortunately, was somewhat mutilated in removal, as an incision in the neck was not permitted. Some œdema may be noted, and in the recent state areas of hyperæmia were observed, probably the seat of membrane.

The trachæ presents these areas much more plainly.

The glands at the root of the lungs and along the trachæ are much enlarged and indurated, one is lodged just at the bifurcation of the trachæ and probably had some causal relation, through pressure, to the emphysematus condition of the lungs.

Thorax: lungs, the pulmonary and costal pleura, are adherent, as is also the diaphragmatic, the lobes of the lungs are bound together by slight adhesions. In numerous spots over the lung tissue are to be seen small areas of emphysematous dilatation.

Cross sections of the bronchiols show exuding muco-purulent matter well aërated. No effusion is to be seen in the pleural cavities.

The heart appears to have undergone some dilatation of its right cavities; the valves are normal, the left side is firmly contracted, with normal valves. Contrary to our expectations, no clots were seen either in the heart, plumonary artery, or aorta, with the exception of a very small one entangled in the cordal tendinæ of the right ventricle. No effusion within the pericardium.

Liver normal; spleen somewhat enlarged. Stomach contained a large quantity of undigested milk; over its surface are seen numerous centres of ecchymosis. Kidneys and brain not examined.

The cause of death in this case becomes an intesting inquiry. The child was practically well of the diphtheria, and was progressing nicely towards convalescence, when suddenly signs of apnœa appear, deepening into death. As was noted above, the right auricle and ventricle appear to have undergone severe dilatation; this, to my mind, was the cause of death in our patient's case, as *sudden and considerable dilatation of the cardiac cavities, more especially of the right heart*, may be remarked at the bedside, and in many febrile cases causes sudden death from heart failure.

Dr. Tyson said that the cause of death in diphtheria seemed best explained by the theory of Dr. Edwards, which is a very reasonable one, and that this dilatation of the heart cavities was the result of a rapid fatty degeneration of the heart muscle, a condition of frequent occurrence. Theoretically digitalis was considered useful in this form of heart failure, but if due to fatty degeneration it could of course produce no effect. Affections of the cardiac ganglia he did believe produced this heart dilatation.

Dr. Edwards said that Dr. Beverly Robinson had reported examinations in which he could find no fatty degeneration, and Dr. Edwards himself, in three cases of rapid dilatation of the right cavities occurring in typhoid fever, had failed to find evidences of fatty degeneration; these cases were published in the medical journals about one year ago.

—A Russian translation of Dr. Weir Mitchell's admirable brochure on "Fat and Blood," has just been published in St. Petersburgh.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Dr. C. W. Dulles read a paper entitled

Suggestions from Dispensary Experience, for the Surgery of General Practice,

saying: It has often seemed to me that the experience gained in the many dispensaries of our large cities is not made of as much service to the profession as it might be, and that it would not be amiss if those who have the advantages which these positions afford would occasionally try to put into accessible shape the lessons which they have there learned, and lay them before their brethren for adoption or correction. And, because I have had to learn by experience some things which it would have been better for my patients if I had found out in some other way, I have thought it might be worth while for me to invite your attention to certain notions in regard to the kind of surgery which occurs in general practice, which I have gathered during the past ten years, and which, if they are correct, may be helpful to others; if they are incorrect, I shall be glad to have criticised.

In order to arrange a somewhat desultory subject in as orderly a way as I can, I shall divide it as follows:

1. The examination and diagnosis of surgical lesions.
2. The cleansing of wounds.
3. The control of hemorrhage.
4. The dressing of wounds.
5. Bandaging.
6. Splints.
7. The sling.
8. Constitutional treatment.

1. THE EXAMINATION AND DIAGNOSIS OF SURGICAL LESIONS.

I trust I shall not be deemed officious in urging the importance of thoroughness and discernment in making up a diagnosis as to what is the nature of the lesion for which one is consulted by a sufferer. Every writer, and every lecturer, dwells, more or less, upon this point. But, in spite of all that is said and written, mistakes are constantly being made, which greater care would have prevented. I have seen fractures treated as contusions, and contusions as fractures, over and over again. I have seen a patient treated for a fracture at the lower end of the radius with a time-honored Bond's splint, who had nothing the matter near the wrist, but who had a severe and dangerous contusion of the elbow-joint. I have seen hydroceles treated for years as herniæ, and have been called to operate for strangulated inguinal hernia when there was only a hydrocele of the cord, innocent and easy to cure. I have seen a psoas abscess mistaken for a hernia, and over and over again sinuses of the face, due to disease of the root of a tooth, treated in vain as simple abscesses, the recognition of the cause and the removal of the offending tooth being followed by a prompt recovery. I do not care to cite many mistakes of my own, but I cannot forget my mortification once when caught napping by an ulcerated knee, the syphilitic nature of which was indicated and easily demonstrated when a more experienced surgeon asked to see the other leg. On the other hand, I have known lesions to be

characterized as syphilitic on what I thought to be an unwarrantable suspicion, and a cross-examination to show that what a patient called a chancre could not possibly have been the initial lesion of syphilis.

Now, such errors should not be passed over, or hushed up, when we are speaking among ourselves, or we shall miss the advantage of being taught the necessity for constant vigilance and thoroughness in examining our patients.

Of course, this is not the place to discuss the diagnosis of various lesions; but it may be worth while to call attention to the importance of making our examination include, not only the part believed by the patient to be injured, but also the surrounding parts—muscles, bones or joints, as the case may be—for some distance above and below. The opposite and corresponding parts should often be looked at, for purposes of detection or comparison. Nor should we hesitate to call to our aid the probe or the exploring needle, both of which are valuable and harmless instruments in judicious hands.

Two little points, in regard to the sinuses of the face, I would like to speak of. One is the well enough advocated examination of the teeth, by inspection and tapping, to detect a state of abscess in the alveolus; the other I do not remember to have seen recommended. This is, to test a suspected salivary fistula by bringing a drop of the discharge into contact with a drop of the tincture of chloride of iron on a white surface—a piece of white paper will do—when, if the discharge contain saliva, it will give the pink color which indicates the presence of the sulphocyanide of potassium, a normal ingredient of saliva.

And, before dismissing this subject, I think a word may be said as to the failure, when one is really at a loss, to get the opinion of some one who is more familiar with our subject than we are. However proper the motives may appear which lead to this, they cannot avert from the patient the consequences of error or delay in diagnosis or treatment; and I believe it would be greatly to the advantage of our patients and ourselves, if we accustomed them to the idea of having a consultation before a case becomes extreme.

2. THE CLEANSING OF WOUNDS.

My own experience has led me to the belief that this salutary proceeding is sometimes overdone. When we see a scalp-wound, or a laceration of the face, covered with a scab, even though it be not a very handsome one, good surgery does not, I think, require us to take it off, unless the appearance of the neighboring parts indicates that an inflammatory process is going on under it. Nor, when a crushed finger is enveloped in dry covering of blood and machinery grime, need we think our patient's safety depends upon a thorough removal of these. On the contrary, I should say his rapid recovery often depends upon our letting them alone. But scabs that cover pus may always be removed with advantage; and foul secretions, or accumulations, can only do harm, and must be cleaned out. So the cleansing of wounds is not only an æsthetic, but also a salutary, procedure. As to the method of cleansing, I am a convert to the views of Mr. Sampson Gamgee, who never uses a liquid for cleansing when it is not specially indicated. Careful mopping with dry cotton or lint will do far more than those who have not tried it would imagine. Rubbing is rarely called for, but just touching with the cotton or lint, and pressing it down with more or less firmness, as the circumstances require. But, when the case demands it, we must not hesitate to rub firmly, even a little roughly, or to pick off or cut off what sticks tight to the healthy tissues.

However, we should not eschew the use of water too tenaciously. It is often indispensable, and, combined with a little permanganate of potash—just enough to make a transparent, pink solution—it is a *sine qua non* in dispensary practice, as a disinfectant and deodorant. This combination, it seems to me, excels every other so-called antiseptic; and carbolic acid, I may say, I never use as an antiseptic at all.

In this connection, I wish to emphasize what I think is a very important matter in washing of wounds and sores, namely, that the same fluid should never be used twice; that is, it should not be dipped from a basin and allowed to flow from the wound or sore into the same vessel, and then dipped up and used again, and so on. The best way of washing a wound would be to let the water run upon it from a hose with a regulated force. But almost, if not quite, as good as this, is the plan of having one vessel to hold the wash and another to catch the drippings, and to apply the wash by letting it fall in a steady stream from a clean sponge or a mass of oakum. The size of this stream, and its force, can be easily regulated by the force with which the sponge or oakum is squeezed, and the height at which it is held. If the dripping mass be grasped in the hand and held with the thumb up, by well-regulated squeezing a single stream can be made to fall from the dependent portion in exactly the place and way we wish.

3. THE CONTROL OF HEMORRHAGE.

An important part of the preparation of a wound for dressing, is the control of hemorrhage—I do not mean the hemorrhage from large vessels, but that from small ones, such as are usually encountered in the surgery of general practitioners. Our colleague, Dr. Roberts, has, I think wisely, deprecated the routine use of styptics, and I quite agree with him that, for almost all small vessels, the pressure of a well-applied dressing will do all that is needed in the way of controlling hemorrhage. Such a dressing may be made of dry lint, bound on with moderate firmness—actual tightness is not called for—and often one will have, in a little while, an imitation of nature's favorite method of healing, by the formation of a scab, made up of dried blood and the tissue of the dressing. The essentials for controlling moderate hemorrhage are dry dressings and moderate compression. Pressure alone is sufficient to control the bleeding from scalp-wounds, which are sometimes spoken of as if they were troublesome to deal with. It is remarkable, at times, to hear men describe the pains they have been at to ligate an artery of the scalp, in view of the fact that this is never indispensable. A compress and a bandage will control any vessel in the scalp, and almost anywhere else; and, if

an unruly patient is likely to pull a bandage off, a pin, even a common one, may be thrust under the vessel and brought out again beyond it, so as to hold it as long as any one could wish. If still greater security be desired, it can be had by adding a "figure 8" to this pin.

And here I wish to add a word as to the need for stopping bleeding. I will go a little further than Dr. Roberts in regard to the innocence of hemorrhages which sometimes cause great uneasiness. Many of these hemorrhages are absolutely beneficial. Of course, one need not be foolhardy; but such hemorrhages as come from superficial wounds may be regarded with the greatest equanimity, and no one need get flustered in trying to stop them. In my own experience, I often encourage bleeding to a considerable extent, as in the case of incisions for felons and palmar abscesses, and the like, and have never felt that I lost anything by being deliberate.

Hemorrhage from small vessels can often be controlled by a firm pinch with the forceps, or the vessel may be drawn out and twisted round several times. This will often obviate the necessity for ligatures, in operations such as circumcision of infants or children. Sometimes the arteries in the fingers will bleed in a most troublesome way. If the bleeding cannot be stopped by pressure or torsion, it can be controlled by a pad of lint and a few circular turns of adhesive plaster. Persistent hemorrhage from an alveolus, in one with a hemorrhagic diathesis, I have controlled, when plugging gave only temporary relief, by injecting a fine stream of cool water against the bleeding point. Bleeding from the wound of the palmar arch can, I believe, almost always be controlled by a pad and bandage.

4. DRESSING OF WOUNDS.

Dry Dressing.—Nature's method of protecting wounds is by the process of scabbing; and when we reflect upon the successful way in which this operates in all the lower animals, and often in man, too, we may wonder that it should be almost a matter of routine to remove scabs in surgical practice. It may gratify our curiosity, it may even aid our study at time, but it is often of no advantage to the patient to remove from a disfigured face, or a cut head, the crusts which are nature's reliable antiseptic dressings. From what I have seen, I believe it is best to leave such crusts undisturbed whenever possible, and if they are objectionable, in an æsthetic sense, simply to cover them with something better looking. Further, it may be said that an artificial scab made with lint, or tarletan, or thin muslin, and collodion, forms one of the best dressings for simple incised and not a few lacerated wounds, which have ever been devised.

In hospital practice, I see many cut heads and simple incised wounds, even after the removal of tumors, which go to a prompt and uninterrupted healing under the first dressing of this sort. Similarly, scabs may be formed by allowing lint to become saturated with the oozing of a wound exposed to the air. Dry powders, such as earth or bismuth, or calomel, or powdered borax, or boric acid, or iodoform, may also be used to promote the formation of a crust. In all these cases, however, it is important to watch lest the crust bind down offensive discharges, as any scab may do; when this happens, the crust must, of course, be removed, and the wound cleaned.

In the case of strumous ulcers and the weak granulations of large burns, I have had the happiest results from setting aside ordinary dressings, and applying a powder in this way. In these latter cases, I have sometimes practiced exposure of the granulating surface to the air until the serous film covering them has coagulated and formed a species of skin over them. And to my astonishment, I have seen such a film actually transformed into thin skin without displacement. This is a fact which I believe does not accord with the accepted laboratory idea of new skin formation; but it is a fact, nevertheless. And I would especially urge upon others this plan of treatment in the class of cases referred to—old burns and strumous ulcers—which are, I believe, often kept open by the ointments and other warm and moist dressings used to promote their healing.

Water Dressing is another good dressing, which I believe is too little appreciated. I have seen a number of wounds of the fingers and hands, for example, done by machinery, in which rapid and painless recovery has followed the application of wet lint, which was wetted again as often as convenient, with a lukewarm or cool solution of common borax. Patients with such injuries I have often dressed with cold water and told them to dip the finger or hand, as the case might be, in a solution of a teaspoonful of powdered borax in a pint of water, warm or cool, as they found more pleasant, without removing the first dressing.

Lead-water and Laudanum is but little better than cold water, so far as my experience would indicate; although it is suited to cases that are especially hot and painful. But I believe this ought never to be covered up, as it very often is, with impervious coverings. It is not an uncommon thing for me to see a cut hand, or a contused joint, or a painful fracture, covered with lint soaked in lead-water and laudanum, with a piece of waxed paper over this, and next a bunch of oakum, the whole bound to a splint with many layers of bandage. My inquiries have usually elicited, from patients treated in this way, the most expressive assurances that they had suffered much, often having passed a sleepless night after these dressings were applied; and I have, I think I may say invariably, found that the suffering disappeared when I changed the dressing for a light lint, dipped in lead-water and laudanum, and held in place by a thin, light bandage, so applied as to leave part of the lint exposed to the air and consequently to evaporation of the lotion, with no splint at all, or the lightest and smallest kind possible. What makes a recent injury hot and air-proof, I have found usually a painful dressing.

Dilute Alcohol is another refreshing dressing, if it be allowed to evaporate, and removed at the first sign of pain.

Carbolized Oil, which is, perhaps, not such a very common surgical dressing nowadays, I have found to become very quickly offensive, and I now hardly ever use it. If renewed often enough, it is, however, soothing and healing.

Ointments.—To discuss fully the ointments in use in simple surgery, would require more time

than you have to give me. So I may, perhaps, be justified in stating that the most universally applicable ointment for open wounds which I know of, is one made of equal parts of carbolic acid ointment and oxide of zinc ointment. This has seemed to me to do more good than any other ointment in the case of granulating surfaces, unless they were syphilitic, and in these, I think, mercurial ointments sometimes do better. A little point in regard to the use of ointments is, that they should be confined, as nearly as possible, to the open surface. A piece of lint or muslin should be spread with the ointment, and trimmed down to the exact size of the sore. If spread on the adjacent skin, it will often, after a while, set up an artificial eczema, which is very annoying to a patient.

(To be continued.)

EDITORIAL DEPARTMENT.

PERISCOPE.

The Possible Suspension of Old Age.

Dr. S. W. Caldwell thus writes in the *Mississippi Valley Medical Monthly*, March 10, 1885:

In bygone times those profound mysteries and metaphysicians, the Rosicrucians, and still later the Alchemists, claimed to have discovered the elixir of life. They asserted that old age might be retarded and life considerably prolonged by means of an elixir, preventing or rather suspending physical decay. The celebrated English Rosicrucian, Dr. Hood, whose writings became famous, is said to have reached a hundred years.

Modern science has recently made more startling discoveries than were those dreamed of by the alchemist. The possibility of prolonging life has throughout all ages been deemed worthy of notice by great thinkers, amongst whose number the illustrious Bacon and Hufland are enrolled. In the following remarks I shall endeavor to give the latest scientific knowledge relative to this interesting and, in some respects, novel subject. Premature age, as engendered by various mental and physical causes, excesses, etc., do not come within the scope of this short paper. The principal characteristics of old age, as demonstrated by anatomical research, are a deposition of fibrinous, gelatinous, and earthy material in the system. Every organ of the body, during old age, is especially prone to ossific deposits. The earthy deposits have been found to consist primarily of phosphates and carbonates of lime combined with other calcareous salts.

According to the researches of Dr. Williams, of England, man begins in a gelatinous and ends in an osseous or bony condition. From the cradle to the grave a gradual process of ossification is undoubtedly present; but after passing middle age the ossific tendency becomes more markedly developed until it finally ushers in senile decrepitude. These earthy deposits during old age materially interfere with the due performance of function by the organs; hence we find imperfect circulation in the aged; the heart gradually becomes ossified; the large blood vessels blocked up with calcareous matter, and nutrition hindered.

A distinguished physiologist says: "If repair was always equal to waste, life would only terminate by accident." And it is the opinion of eminent scientists that the majority of all who pass sixty-five years suffer more or less from these ossific deposits. Therefore, bearing these facts in mind, we plainly see that the real change which produces old age is in truth nothing more nor less than a slow but steady accumulation of calcareous matter throughout the system; and it is owing to these deposits that the structure of every organ is altered, thus elasticity giving way to senile rigidity. Blockage of various organs thus commenced, and sooner or later a vital part becomes involved, and death of necessity follows. The idea that old age was brought about simply, or at all, by a decline of the vital principle, has long since been discarded by scientists, and the true cause found to be that of gradual disintegration of the tissues because of the inadequate supply of blood.

Again, quoting from Dr. Williams, this process is believed to be of a chemical nature, consisting in the concretion and accumulation of calcareous salts, phosphates, and carbonates of lime. The causes of old age therefore being nothing more nor less than ossific deposits, let us for a moment look for the causes and influences leading to the condition we have described; for having arrived at the predisposing causes of senile decay, it yet remains for us to go still further and seek out their origin.

The two principal causes of old age are, first, fibrinous and gelatinous substances; and second, calcareous deposits. According to recent researches of Delany Evins, the origin of the first, the fibrinous and gelatinous, may undoubtedly be traced to the destruction of atmospheric oxygen, and demonstrable by the following argument:

In the air we breathe the relative proportion of oxygen to nitrogen is 22 to 78; and although oxygen is in far smaller bulk, yet it is the most active element. Now oxygen has an affinity for every other element except flourine; and as oxygen plays by far the most important part in these chemical changes constantly at work in the economy, life itself is but a constant waste by oxidation and reparation by food. In the blood exists albumen and fibrin, themselves resolved into component parts, carbon, hydrogen, nitrogen, oxygen, sulphur and phosphorus. Fibrin, it is claimed, contains one and five-tenths more oxygen than album. Now oxygen converts albumen into fibrin, fibrin itself being but an oxide of albumen. Although unquestionably fibrin nourishes the organs of our body, yet it becomes at times, as we reach the cool and shady walks in the evening of life, accumulated in redundant quantity, blockading the streams of life as doth the chilling winds

of winter the mountain rivulets. There is always a struggle going on in our bodies between accumulation and elimination, and thus it is that the fibrinous and gelatinous accumulations of old age are chiefly traceable to chemical action of atmospheric oxygen.

The calcareous deposits next claim our attention, being proved by anatomical investigation to be peculiarly characteristic of old age. In the human body water forms seventy per cent. of its aggregate weight; in fact, there is not a single tissue but contains water as a necessary ingredient. Now water holds certain salts in solution which become more or less deposited, notwithstanding the large proportion eliminated through the secretions. Nevertheless, it is but a question of time before these minute particles deposited by the blood have a marked effect in causing the stiffness and aridity of advanced life. The reason why in early life the deposit of earthy matter or salts is so infinitesimal is simply because they have not had time to accumulate. Besides providing the requisite elements of nutrition, food contains calcareous salts, which upon being deposited in the arteries, veins and capillaries, become the proximate cause of ossification and old age. Mr. Lewis, an eminent English scientist, in his Physiology of Common Life, says: "Moreover, in food we are constantly introducing different substances which produce variations in the nutrition of the parts. These different accumulations exert their influence in those changes named age, and they culminate in the final change named death."

Having now traced the primary existence of calcareous matter to food itself, it is consequently a subject of no small moment to ascertain the various dietetic articles containing these salts. As a matter of fact everything we eat does contain them to a greater or less degree. The cereals are found most rich in them; so bread itself, the so-called staff of life, except in great moderation, most assuredly favors the deposition of these salts in the system. The more nitrogenous our food, the greater its percentage of calcareous matter; thus a diet composed principally of fruit, from its lack of nitrogen, is best adapted for preventing or suspending ossification.

Moderation in eating must ever be of great value as an agent for retarding the advent of senile decay. Large eaters more rapidly bring on ossific deposits by taking in more than is utilized or excreted, naturally resulting in blockading the vessels and destroying their normal functions. According to the best authority I have been able to consult, the following seem to be the best articles of food as containing the least of earthy salts: Fruit, fish, poultry, flesh of young mutton and beef, because, as before stated, of their being less nitrogenous. Fluids, as part of the diet, is of special import. All well and spring water contains considerable of the earthy salts, and should therefore be avoided, and cistern water used in its stead, because water is the most universal solvent known. Therefore, if when taken into the system clear of foreign matter, it is to that extent the better prepared to dissolve and take up those earthy salts and convey them out of the system. The addition of fifteen or twenty drops of dilute phosphoric acid to the glass of water, and drank three times a day, will add to the solubility of these earthy salts.

The Brain a Composite Organ.

Some thirty-six years ago, by a premature explosion of gunpowder, an iron bar three and a half feet long, one and a quarter inches in diameter, and weighing thirteen and a quarter pounds, was shot completely through a man's head and perforated his brain. This man walked up a flight of stairs after the accident, and gave his account of how it happened. Although his life was despaired of for some time, he developed no paralysis, nor did marked impairment of his intellectual faculties follow convalescence. Eventually he recovered his health. Twelve years elapsed before his death, during which time he worked as a laborer on a farm.

The "American crowbar case" at once became famous. It startled the minds of the reading public, and confounded the medical fraternity. No satisfactory explanation of the remarkable features of the case could be given. Some prominent medical men pronounced it "an American invention," and laughed at the possibility of such an occurrence. The skull was exhumed, however, after death, and is to-day in the medical museum of Harvard University.

This case may be said to have been the starting-point of a new epoch in medical science. It rendered untenable all previous hypotheses that had been advanced regarding the organ of the mind. It proved conclusively that little, if anything, was known at that time respecting the architecture of the brain of man, and the functions of its component parts.

Since then a large number of observers have published the results of various forms of experiments upon animals, made with a view of determining the physiology of the brain; but for some years the conclusions drawn from such investigations were contradictory, and nothing was definitely established. We now are aware that serious defects existed in the early methods of research. By great ingenuity these have been gradually eliminated. We owe, however, to the discoveries of Türck, Fritsch and Hitsig, Waller, Flechsig and Gudden, most of our knowledge of new methods of research which have simplified the study of the nervous system during life and after death. These have settled many points in dispute. They have also made our knowledge more accurate, and in accord with clinical observations.

The last decade has enabled us to bring most of the results obtained by vivisection into perfect harmony with pathological data. Those who have claimed that conclusions drawn from experiments upon animals are not applicable to man are to-day confronted with unanswerable facts to the contrary. Nature, through the agency of disease processes, is constantly performing experiments upon human brains, and the symptoms so produced may be recorded during life, and compared with the changes found in the brain after death. Physiology and pathology have thus added much to our knowledge in this field.

To-day the "crowbar case" is no longer a mystery to specialists in neurology. Bullets have been shot through the brain since then without loss of motion, sensation, or intellect; and in some cases they have been known to remain buried in the brain substance for months without

apparent ill effects. Three years ago a breech-pin of a gun, four and three-quarter inches long, was forced into the brain of a boy nineteen years old, through the orbit, and its presence was not suspected for some five months. It was discovered during a surgical attempt to repair the facial deformity that resulted from the accident. Death followed the removal of the foreign body from the brain, in consequence of inflammation, created apparently by its extraction. This case is quite as remarkable as the crowbar case, but it excited less interest in neurological circles, because we are in possession of new facts.

We know to-day that if even a needle be thrust into one region of the brain (the medulla oblongata), immediate death may follow, while a crowbar may traverse another portion of the organ and recovery be possible. The effects of injury to the brain depend rather upon its situation than its severity.

In the light of our present knowledge the brain must be regarded as a composite organ, whose parts have each some special function, and are to a certain extent independent of each other. One limited part is essential to vital processes; hence its destruction causes death. Another part presides over the various movements of the body; hence paralysis of motion is the result of destruction of any portion of this area. A third part enables us to appreciate touch, temperature, and pain; and some disturbance of these functions will be apparent when this region is injured or diseased. A fourth region presides over sight; blindness may follow disease or destruction of this area, in spite of the fact that the eyes escape. In the same way smell and hearing are governed by distinct portions of the brain, and also the sense of taste. When a combined action of different parts is demanded—as in the exercise of the reason, judgment, will, etc.—the knowledge gained by means of the special senses can be contrasted and become food for thought.

The skilled neurologist can often tell to-day, by the symptoms exhibited during life, the situation and extent of disease processes that are interfering with the action of certain parts of the brain. So positive is the information thus afforded in many cases, that surgical operations are now performed for the relief of the organ. A patient who had lost the power of speech from an accumulation of pus within the brain, was lately cured by the removal of a button of bone from the skull over the seat of the pus, and its prompt evacuation. Epileptics who suffer in consequence of brain irritation may sometimes be cured of their fits by the mechanical removal of the cause. Paralysis can occasionally be cured by a removal of a clot of blood from the surface of the brain through a hole in the skull. Only a few months ago a bullet, which had been shot into the head during an attempt at suicide, was removed from the skull, in one of our hospitals, by means of a counter-opening. The labors of such men as Meynert, Charcot, Nothnagel, Ferrier, Wernicke, and others, have made neurology a science that would exceed the comprehension of its founders. Our ability to localize disease within the substance of the spinal cord is even more remarkable than in the case of the brain.—Dr. A. L. Ranney, in *Harper's Magazine for March.*

Bilateral Athetosis.

Dr. A. G. Barrs thus writes in the *London Med. Times*, January 31, 1885:

Examples of the conditions first-named by Hammond, are of sufficient rarity to warrant the publication of the following case:

F. G., a female aged 36, was seen by me at the Leeds Public Dispensary, on November 19, 1884.

She is married, and has had one child born thirteen years ago, which survived its birth only six months, and then died from simple wasting, and without any manifestations of congenital syphilis. There has been no subsequent pregnancy, and her husband is living and well. Thirteen weeks after her confinement, which had passed without any difficulty or subsequent puerperal trouble, she was suddenly seized with paralysis of the right limbs, and loss of speech in the ordinary hemiplegic fashion. There was no loss of consciousness. For some little time preceding the stroke, she had experienced a slight sensation of numbness in the tongue and roof of the mouth. The movements in the left hand made their appearance slowly soon after the paralytic seizure, so far as she can now remember, and have been constant ever since.

F. G. is a pallid, spare, rather haggard-looking woman of clear intelligence, but slightly emotional. One is at once struck with the constant grotesque movements of the fingers of the left hand, which she is continually trying to restrain, but only partially succeeds in doing so, by grasping them firmly with the other hand, and placing both between the knees. The forearm and hand on the left side seem also to be affected, and when standing she controls their movements to some extent by grasping the folds of her dress. The movements have precisely the grotesque, irregular, involuntary, slow, and apparently powerful character described by Hammond, the abduction and hyper-extension of the individual fingers being well marked. On further and closer inspection, it is seen that the movements are not confined to the left hand. The little finger of the right hand presents the abducted and hyper-extended position to a well-marked degree, and the other fingers of this hand have constant movements of the same kind, but to a much less extent than those on the opposite side. The toes of both feet show the slightest disposition to move involuntarily when placed in any definite posture.

The right arm on actual measurement shows a slight loss of substance when compared with the left. After very careful testing, no anæsthesia is found in any of the affected parts.

The mouth is markedly drawn to the left side, and the right face presents the ordinary condition seen in hemiplegia. The muscles of the left side of the face are undoubtedly affected by the athetotic conditions, and are continually manifesting slow movements giving rise to curious grimaces. The tongue is, when protruded, strongly deflected to the right, and markedly unsteady. While projecting from the mouth, the organ is seen to be firmly grasped by the lips, which perform a sort of sucking movement upon it. There is no obvious affection of the neck muscles.

The constant movements of the hands interfere surprisingly little with the performance of her

ordinary household duties. After being asked to make careful observation, the husband states that the movements in the left hand, though much diminished, do not entirely cease during sleep. The heart sounds are clear. The urine has a sp. gr. 1015, and is free from albumen or sugar.

The case is one of very striking interest as combining in one individual a spontaneous and a post-hemiplegic motor affection in no way to be distinguished from that described by Hammond under the name of athetosis. So far as I am aware, no attempt to set apart cases of spontaneous athetosis from the large class of post-hemiplegic movements was made until Oulmont* published his thesis in 1878. Cases of bilateral and spontaneous athetosis had been published by Dr. Claye Shaw, Dr. Clifford Allbutt, and Professor Gairdner previously. but had apparently been regarded as much the same nature as the post-hemiplegic cases. In regard to the case here published, it is difficult to determine off-hand whether it is one of spontaneoous double athetosis, the affection of the left side being much in advance of that of the right side, or one of primitive hemi-athetosis of the left side, with a late development of ordinary post-hemiplegic movement on the right side.

We have the authority of Charcot, and with some qualifications of Dr. Gowers, for regarding such cases as those published by Hammond and all such, as examples of one of the rather numerous classes of post hemiplegic motor disturbance —as example, in short, of what has for long been known as post-hemiplegic chorea. But even here two well-marked classes of cases are to be found, namely, those in which the affected limbs are anæsthetic, and those in which sensation is unaffected. Again, the absence of any strictly paralytic condition in the present and in many other published cases of athetosis points to its being an unusual sequence of ordinary hemiplegia. The case here published, together with those of Oulmont and others, goes far to establish a considerable class of cases in which slow, irregular, involuntary, contortions of certain members, especially of the hands, are altogether independent of any anterior paralyzing lesion or lesion of the sensory tract. What may be the true nature of this class of cases, and what their pathological substratum, there is little evidence upon which to base an opinion. From a clinical point of view, though easily distinguished from, they have a close resemblance, in kind at any rate, to ordinary chorea. Very little pathological evidence is forthcoming in explanation of the primitive, as distinguished from the post-hemiplegic cases ; but, such as it is, it points rather to a so-called functional derangement in the motor area of the cortex of the brain than to any structural change which we can at present recognize. A case recently published by Kirchoff, of mitral disease, in which athetotic movements of the left limbs appeared and continued up to death, 22 days later, and in which no brain lesion was found, either embolic or otherwise, tends to support the conclusion which the clinical manifestations seem to me to favor : that the primitive or spontaneous athetosis is not due to any organic change in the motor centres, but to their functional disturbances or obliquity.

*"Étude Clinique sur l'Athetose," Paris, 1878.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——That contaminated drinking water is the commonest cause of typhoid fever, and that low water in wells means contaminated water, are strongly set forth in a pamphlet by Dr. Henry B. Baker, of Lansing, Mich. He adds this among other useful suggestions :

"The numerous instances where typhoid fever has apparently been caused by drinking-water contaminated by decomposing *vegetable* matter, indicate that, even if the cause of the disease is specific, until such time as that the specific cause shall be so restricted as not to find access to water-supplies, it is important to preserve the water from contamination by vegetable as well as by animal matter."

——The extension of our railway system towards and into Mexico has been one of the most remarkable developments of recent years. A paper, "Along the Rio Grande," by Mr. Sylvester Baxter, which appears in the April *Harpers*, will give an entertaining sketch of that country before and during the making of the railway there, and many illustrations by W. L. Metcalf will add to its interest.

BOOK NOTICES.

Lectures on Diseases of the Nervous System, Especially in Women. By S. Weir Mitchell, M. D., etc. Second edition, revised and enlarged. With five plates. Philadelphia : Lea Bros. & Co.

The second edition of this work appears with considerable changes from the first, several of the lectures having been rewritten, and others added. The latter are on the difficulties of diagnosis in hysterical diseases of joints, on the relations of hysteria to organic disease of the spine, and on hysterical disorders of the rectum.

These, and the other topics treated by the author, which include hysterical paresis, the mimicry of disease, tremor, chorea, disorders of sleep, hysterical aphonia, and similar affections, are discussed with great acuteness of observation, and faithfulness of clinical portraiture. The many obscurities which surround this class of diseases are explained, and the various plans of treatment discussed. The volume cannot fail to prove a satisfactory one to the reader.

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WHAT INSANE ASYLUMS SHOULD BE.

There is an evident reaction on the part of some leading alienists against the theory so generally advocated a few years ago that the insane are best cared for in enormous single structures.

The ghastly accident of fire, of which we have recently had a terrible example in this city, is one reason why we should hesitate to crowd hundreds of people bereft of their reason into one building. More than any other class they are unable to care for themselves in such an emergency.

But apart from this, there are other good grounds for objecting to these vast edifices. Such objections are well set forth by Dr. H. Wardner, Superintendent of the Southern Illinois Hospital for the Insane, in a paper read before the tenth annual Conference of Charities and Corrections, held at Louisville, Ky., September 24–30, 1883, and recently printed.

He points out that the time has come for alienists to recognize the fact that the chronic insane should have daily employment at some obviously useful work. Most of them would be better and happier, too, if more simply housed in smaller masses than at present. In other words, most of them need to live more natural, more industrious and more responsible lives than they do or can under the existing system, and conditions of greater healthfulness and comfort may be found, we are convinced, in a system looking toward the less costly management of asylums.

Instead of immense buildings, he would have large farms, with several, or a number of small residences. At least an acre of ground should be assigned to each inmate. There is, as he observes, ample testimony to show that the insane feel the need of precisely what it is here sought to give them, namely, a more natural daily life, free access to the open air, a sense of release from restraints of asylum life, earnest work, and a qualified responsibility for themselves and their support.

The details of such a plan would be for the state to buy such farms in healthy locations, and upon them have built structures of moderate size and cost, well ventilated and drained, and placed at

convenient distances from each other. In these buildings the chronic insane can be housed at much less cost than at present, with greater freedom of access to the air and sunshine at all hours. The able-bodied men should be expected to cultivate the land in farm and garden crops suitable for the maintenance of the institution. Those who understand mechanical trades should be set to work at them, chiefly at asylum work.

The women can be employed at ordinary women's work—household labors, sewing, etc. In brief, all the patients should be made to live as nearly as possible after the manner of sane people, each group constituting a household, under the general charge of proper attendants, in which the inmates may live comfortably rather than luxuriously, while contributing by their labor to their own support.

There is sufficient experience already to be certain that a scheme of this nature is entirely practicable; and if the plan is ever generally adopted, experience from year to year will point the way to its gradual perfection in details.

WINTER HEALTH RESORTS.

The tendency among the well-to-do classes is, year by year, setting towards the idea that "all work and no play makes Jack a dull boy," and it is one of the most gratifying evidences of our advancing civilization that our people are commencing to realize that brief seasons of rest and recreation from the more earnest, serious, and arduous duties of life, are not only necessary, but are to be regarded as real sources of pleasure. There was a time when our merchants seemed to delight in boasting that they had not been away from their desks for a day in the past "three or four years." But happily this *barbaric* boast is a thing of the past, and it is now customary not only to see our business men passing the summer away from the city and taking frequent days "at home," but also is it not uncommon to find them "running off" for a few days in the winter. When this practice becomes more common we will hear much less about "neurasthenia," and "American dyspepsia," and our offspring will be infinitely less "*dudish*."

We know that the highly-strung nerves of the large merchant, or the literary man, must be occasionally unstrung, else they will fail ultimately and prematurely to the demands that are made upon them. We know that absolute change of scene, surroundings, occupation, and habits, is the surest means of resting the wearied brain and the exhausted body. Year by year the travel, in winter, to southern climes is on the increase among those whose worldly possessions afford them the leisure to so elect.

Indeed, but recently, a prominent physician remarked that, in his opinion, Florida was the only State in the Union fit to live in. While we cannot go this far, yet we can and do most emphatically assert that in such a trying climate as ours, occasional trips to some more equable climate are productive of wonderfully beneficial results. For the convenience of those who cannot spare the time for a lengthy absence from business, we have dotted along the Atlantic coast of New Jersey from Long Branch to Cape May Point, a perfect host of delightful resorts, to which the weary, brain-sick city man may take himself, and soothed by the roar of "Old Neptune," and invigorated by that almost indefinable something which is ever present in salt air, regain and retain that vigor so necessary not only to happiness, but to the proper prosecution of his duties.

Of course, "variety is the spice of life," and "change" of any kind is beneficial, but there certainly does seem to be an especial virtue in the air of the sea-shore, especially in winter.

The hotels at these various resorts are all provided with every appliance for the comfort and pleasure of visitors, be they invalids or not. We find enclosed porches, with glass sides, through which the sun pours its rays, so that even in the coldest weather one may have a sufficiency of wholesome exercise. We find good eating, polite attendance, and all that may go to make one happy and contented.

At some of these hotels (we noted it personally

at Cape May Point) a resident physician is always in attendance, which in itself is a great inducement for invalids, giving them a feeling of security. Our most recent experience with winter sea-side resorts was at Cape May Point. This little settlement is located at the southern extremity of New Jersey, just where the Delaware Bay empties into the ocean. It possesses many natural advantages, and when the facilities for reaching it are improved, it will become a popular winter resort. We have written these few words to call the attention of our readers to the growing popularity of these winter sea-side resorts, and to suggest that both for themselves and their patients a few days every now and then passed in this way will not be time lost.

Notes and Comments.

Foreign Body in the Alimentary Canal of an Infant Ten Months Old—Passage in Thirty-Six Days—Recovery.

A recollection of such cases as the following will, no doubt, serve on occasions to help us out of tight places. Dr. F. W. E. Kinneir reports it in the *Brit. Med. Jour.*, March 15, 1885:

On January 15, I received an urgent message to go and see a baby, who, the messenger said, had swallowed a toy, and was choking. On my arrival at the house, the father of the child told me that, just after the messenger had started, the child became so bad that he thought it would die; he therefore passed his finger into its mouth, and, feeling something hard and sharp, and not being able to remove it, he pushed it down. The little one was at once relieved, and, when I saw it a few minutes afterwards, was quietly taking the breast as if nothing unusual had happened. I kept the child under observation for a day or two, and gave directions that the motions should be watched and examined. No bad symptoms whatever occurred, the child taking the breast and sleeping as usual. The circumstance had nearly passed from my memory, when, on February 20, thirty-six days after the infant had swallowed the foreign body, the father came to my surgery, and said that the baby had just passed it. The baby seemed in a little pain as the motion, which was semi-solid, came away, and the diaper was slightly stained with blood. The foreign body proved to be half a brass toy locket, with sharp cutting edges, measuring in its long axis seven-eighths of an inch, and from side to side nearly three-fourths of an inch. The color of the brass was very little altered.

The above case seemed to me to be interesting on account of the length of time the foreign body remained in the alimentary canal, no untoward symptoms occurring during its passage. In an adult, we can administer opiates, keep the patient at rest, and order him constipating food, so as to form a coating or a vehicle for the foreign matter swallowed; but this treatment is impossible in an infant ten months old, subsisting, as my little patient does, only on its mother's milk.

Mr. Erichsen relates an interesting case, in which he succeeded in getting a gold plate with three molar teeth to pass in four days after it was swallowed by a gentleman 25 years old; but I think, in contrasting the two cases, that of my little patient is of greater interest.

Ipecacuanha in Dysentery.

It is interesting to learn something about the history of the use of this drug in dysentery, since it has come to be so generally used. Hence we extract the following from Dr. Macpherson's address before the Medical Society of London (March 9):

The drug was introduced into European practice during the last decade of the seventeenth century, as a remedy for the bloody flux; in this malady it acted like a charm. Helvetius considered it as specific in dysentery, as mercury in syphilis, or cinchona in malaria. After being highly prized for about half a century it fell somewhat into disfavor in England and France; but it was habitually used in small doses until the end of the last century. Akenside used very small doses—one grain every six hours; but other physicians recommended either one large dose or several smaller ones (five grains), repeated every hour until vomiting was produced. Subsequently very large doses, even frequently repeated, were highly favored in the tropics, but it was almost entirely superseded by mercury as a remedy for dysentery, though never quite abandoned. In 1846 Dr. Parkes said that ipecacuanha was of quite secondary importance, but recommended small doses. Sir Ranald Martin used doses of ten grains at least. Since 1858 the use of ipecacuanha has been the main feature in the treatment of dysentery, and though something must be put down to improved hygiene and the abandonment of bleeding, still the diminution of the mortality among the troops pointed to the probability that the

drug was really of use in saving life. The French also now use the drug in large doses in the tropics and in America. Bartholow and others had found it useful. From a consideration of the general experience, he was inclined to say that the dose should not exceed thirty grains nor fall below five. He referred to the temporary popularity of mercury during the first half of the present century, and mentioned that even scruple doses of calomel were at one time commonly given, and were supposed to have a specific action on the mucous membrane in dysentery. Ipecacuanha had now entirely replaced it.

A Method of Averting Syncope.

It is well that we should always be prepared to avert what may or may not prove to be a serious, or even fatal, syncope. In persons whose hearts are weak, fainting or syncope is not at all uncommon, and may be produced by very slight causes. Hence we reproduce the concluding paragraph from an article on the subject by Dr. William J. Notley, in the *Lancet*, March 14, 1885:

"Now, in all cases where the syncope is not complete, and where the heart continues to act, though feebly, measures are taken to restore the patient by adopting such means as are calculated to strengthen the action of the heart and facilitate the flow of blood to the brain. In many cases a person accustomed to faint from slight causes will be able to avert the syncope by adopting such means, and it is for this purpose that I wish to draw attention to the efficacy of heat applied to the head. In a person with a weak heart, syncope may be produced by simply sitting with the feet in hot water, and, in like manner, it may be averted by application of heat to the head. Anyone may convince himself of this by first producing faintness in himself artificially. This may easily be done by getting into a bath of about 110° F. In a few minutes he will begin to feel faint. Let him then plunge the whole of his head except the nose and mouth beneath the surface of the water, and in less time than it has taken to bring on the faintness all the disagreeable sensations will cease, and he will now be able to continue in the bath, perhaps for half an hour longer, without any inconvenience. From this it would appear that the application of heat to the head is a measure of some value in averting a threatened attack of syncope."

Remarkable Re-Implantation of a Tooth.

The *London Medical Times*, February 28, 1885, tells us that Dr. Bestion relates (*Gazette des Hopitaux*, January 17,) a case which is probably unique as regards the length of time in which a tooth remained without replacement, after being forced out of its socket. A sailor while engaged in securing a vessel placed the rope in his mouth in order to have a hand free. A comrade inadvertently tightening this rope forced out upon the deck the lower left median incisor tooth. After some searching the tooth was found, but it was not until seventeen hours after the accident that the sailor related his adventure to Dr. Bestion, producing his tooth in a state of absolute dryness. After soaking it in water for a few minutes and then drying it, Dr. Bestion replaced it, the operation causing pain and some hemorrhage. The tooth keeping in pretty straight, no bandage was applied, the only precaution taken being to substitute for the biscuit, soft bread, which for the early days was moistened with water or wine. At the date of the report, that is to say, three months after its replacement, the tooth was found to be quite solidly in place, the only change observable being a diminution of the brilliancy of the surface. Dr. Bestion cannot find any case on record in which a tooth had been successfully replaced after a later period than four hours had elapsed. This is related by Magitot as occurring in a child ten years of age. This author also relates several examples of this time having elapsed in his operations in which the tooth has been intentionally drawn and replaced after the diseased parts had been excised. He also relates the case of a laborious removal of a wisdom tooth, that necessitated the preliminary extraction of the second molar, which was re-implanted about four hours after the operation.

Carbonate of Ammonia in Scarlet Fever.

Dr. A. W. Jackson, of Brooklyn, writes to the *Med. Record*, calling attention to the treatment of scarlatina first brought prominently into notice by Dr. Peart, of England. This consists in the administration of from three to seven grains of carbonate of ammonia every hour for the first day, and then at longer intervals. Purgatives are to be avoided during the early stages of the disease. The writer states that he has had occasion to test this mode of treatment, and can endorse it heartily. In addition, he employs the fluid extract of eucalyptus internally and as a gargle. When there is much exudation, a mixture of carbolic acid and iodine in glycerine is painted over the parts. In too rapid recession of the rash, Dr. Jackson applies cloths dipped in thick mustard water, or wraps the child in blankets wrung out in hot water.

Special Report.

PROGRESS OF OTOLOGY.

BY LAURENCE TURNBULL, M. D.,

Aural Surgeon Jefferson Medical College Hospital; Instructor in Otology, Post-Graduate Course.

The following recent articles on otology have been received since our last review* on this subject:

A Case of Symmetrical Defection of the Hard Palate.† This rare case of anomalous formation was reported by Dr. A. Schapringer, of New York, at the scientific meeting of German surgeons of that city, September 26, 1884. Emilie Sch., a seamstress, 26 years old, and unmarried, was born in New York, of German parents, who are both living and in good health. In her early youth she experienced a very severe attack of diphtheritis. Her voice since that time has been very hoarse, and in the last few months the hoarseness has increased, also a worrying cough, with frequent vomiting, fever, and loss of power have appeared, on account of which symptoms she stopped work. An examination showed two symmetrical, vertical, long oval openings in the hard palate. The right, large enough to run the point of the little finger through with ease; the left a little smaller. The mucous membrane of the opening was normal, and showed no trace of scar. The patient knew of the presence of these openings from her childhood. The tonsil of the right side was wanting, and on the left it was found in rudiment. The largest part of the mucous membrane covering the posterior wall of the pharynx was a web of scars, changed evidently by the diphtheria. The laryngoscopic examination was incomplete on account of the intensity of the break of the inclination. It showed ulcer formations on the real vocal cords.

From both nostrils ran a shallow furrow a short distance vertical upon the upper lip. The furrow on the left side was more distinct than the right. Both sides of the hare-lip healed intrauterine. No difficulty in swallowing has been mentioned by the patient.

The formation of the opening in the arcus palato-glossi is yet to be explained—perhaps it will be given to us earlier from comparative anatomy than from embryology.

2. *Round-celled Sarcoma of the Ear.* By J. Orne Green, M. D., of Boston. The case is interesting, as growths of this character are rare in this situation. The patient was a young man, 23 years of age, entered the Boston City Hospital November 29, 1882. There had been an otorrhœa on the left side ever since scarlet fever at six years of age, continuous and without acute exacerbations. When first seen, the left meatus was filled with a spongy, very vascular, fleshy mass, and there was a muco-purulent discharge. There was slight pain, which after a time increased to the mastoid, followed by redness and swelling of the integument. The diffuse swelling over the mastoid ruptured after entering the hospital, and from the opening protruded a mass of fungous granulations two inches in length and one in breadth, dotted with spots of sloughing tissue, and bleeding freely on touching. The general condition of the patient was very bad, anæmic, and very weak: pulse and temperature but little above the normal. The treatment was iron, quinine, and stimulants, and a charcoal poultice.

On removing the fungous granulations over the mastoid, after etherizing the patient, carious communications were found to exist between the meatus and mastoid, and the petrous bone was found in the same carious condition. In forty-eight hours after treatment there was an improvement but was followed by a relapse with an increase of bad symptoms. February 26th, a paralysis, of the left facial was noticed which continued through life. The tumor increased in size to eight inches in length, six in breadth, and four in thickness over the mastoid, it extended below and in front of the auricle. The treatment consisted in draining the deeper parts, antiseptic dressing, nourishment and stimulants and morphine for the pain. Death from exhaustion took place May 21st.

A microscopical examination of a portion of the tumor by Dr. W. W. Gannett, Pathologist of the Hospital, reported, "a sarcoma of the round-celled variety."

3. A pamphlet, on "*Naso-Antral Catarrh and its Treatment*, By W. H. Daly, M. D., Pittsburgh, Pa. Reprinted from the Archives of Laryngology, Vol. iii. No. 4, October, 1882. He reports two cases with, a "hope that more light may be thrown upon the subject of, not only, the extension of purulent catarrhal disease to the antrum of Highmore and its efficient treatment, but upon the more difficult problem of similar affections of the frontal sinus, the nasal ducts, and the ethmoidal cells." In a case of this character, the patient

*Progress of Otology, MED. AND SURG. REPORTER, November 1-8, 1884.

†Reprint from the Monatschr. f. Ohrenheilk. so wie für Nasan-Rachen-Kehlkopf, and Luftöhren-Krankheiten, No. 11, 1884.

was first attracted by a pain about the left eye, of greater or less severity during two or three months. This pain subsided after a copious purulent discharge from the left nostril. From the nature of the case, there was no suspicion of disease of the antrum, at first; however, after three months' most obstinate efforts on the part of the patient and the doctor, he determined that a large part of the discharge came from the left antrum of Highmore. He was led to this conclusion by the patient telling him that latterly, when lying on his right side, an occasional free flow of mucopus would come into his throat, but no pain existed in the region of the antrum.

The second bicuspid tooth was extracted, and by means of a drill the antral cavity was easily entered. In order to verify the diagnosis, the nasal cavities were thoroughly washed out; then the nozzle, attached to a common Davidson syringe, was placed in the opening of the jaw and a simple alkaline fluid forced in. This was attended immediately by a copious flow of thickish, rather offensive mucus from the antrum, through its orifice into the nasal cavity. This was daily thereafter observed by means of the nasal speculum.

"That this case was fully cured, I am unable to say, but that the disease of the antrum was cured, there is scarcely a doubt."

4. "*The Diagnosis and Treatment of Chronic Nasal Catarrh**." By George Morewood Lefferts, M. D., Prof. of Laryngoscopy and Diseases of the Throat in the College of Physicians and Surgeons, New York, etc. This is a little book of 49 pages, with numerous woodcuts, and is divided into three clinical lectures—1. Examination; 2. Diagnosis; 3. Treatment.

We all hear a great deal about "chronic catarrh of the nose," and you will see a good deal of it. Patients who suffer from it, and patients who have not got it, but imagine that they have, will come to you in great numbers. You certainly, then, ought to be able to recognize it when present, to exclude it when absent, and above all, be competent to treat it scientifically and successfully. Let me ask just here: do general practitioners always recognize it? Do they always examine for it? Are they not too apt, in too many cases, to accept the statement of the patient, make no examination, prescribe a nasal douche and some wash, and allow the patient to disappear, perhaps to excite a catarrh where none existed before? Patients will make their own diagnosis—it is common for them to do so—and often come to you for the treatment of that which perhaps does not exist; often they will treat themselves, without any advice. The country is flooded with advertisements, pamplets, and books on the subject of nasal catarrh. The field is a rich one for the quack; "sure cures" multiply rapidly; new remedies are eagerly sought for by the credulous; "catarrh snuffs" crowd the counters of every drug store, and "nasal douches" are manufactured and sold by the thousand. The quack does not spare the feelings of the patient: he pictures the disease in its most disagreeable aspects; he dwells upon the worst symptoms; he confounds other diseases—syphilis, for instance—with simple catarrh; in short, he frightens.

Your patients, then, well posted on literature of this class, come to you, dreading that the nasal trouble that they have, or perhaps have not got, will develop into the worst form of catarrh that they have read about—above all, that it will develop a disagreeable odor. A symptom that they also often dwell upon, regarding it as a sign of the dread disease, is "a constant dropping of mucus in the throat"—an ever present desire to clear it. Some little mucus they do bring away, often not. Let me warn you here, that in a good percentage of these cases all this has nothing to do with "nasal catarrh." The patient is probably suffering from a simple relaxed throat, or a chronic pharyngitis in one of its forms—perhaps, and most commonly, a relaxed or elongated uvula—and that these, especially the latter, are the matters at fault, *not* the nose. All this you must prevent, they cry to their doctor; they demand treatment at your hands.

Now, much of this nonsense you, as sensible medical men, can prevent. But, first, you must yourself know what nasal catarrh really is, what forms it appears under, and how to recognize the varieties by their intra-nasal appearances. The day has gone by when all nasal affections can be recklessly classed under the generic name "catarrh," and so treated. What a multitude of sins that word has covered!

The one symptom that patients most fear, and justly so, I have already alluded to: the foul smell from the nose; but it is in reality a rare one, and only occurs in the fetid or atrophic form of nasal catarrh. It only occurs in patients who are the victims of syphilis or struma, sometimes happens in scrofulous subjects. Fetid or atrophic catarrh is unusual, and thus you are able at once to reassure your patient in regard to the most dreaded symptom.

*Reprint from Med. News of Philadelphia, April 26, and May 3, 1883, and American Clinical Lectures, Vol. ii., No. vi. Lambert & Co., St. Louis, Mo.

I have said this much in order to prove to you the necessity of learning to recognize the varieties of nasal catarrhal disease, for not alone diagnosis, but, what is equally important, your correct views regarding the questions of prognosis and treatment, will depend upon your acquirement of this knowledge. Some forms of nasal catarrh are curable, others are not. Is there, then, more than one form of nasal catarrh? Most certainly; and you will learn to differentiate them. First, acknowledge the fact that they do exist. You will meet with three varieties: 1. Simple chronic rhinitis (and let me say here, that I prefer this term rhinitis to the one "catarrh," which is so commonly used). 2. Hypertrophic rhinitis; and 3. Atrophic, or fetid rhinitis.

In the treatment of nasal catarrh, the patient is frequently misled that the use of the douche will produce a cure. Such practices are productive of no good, but much harm. A chronic inflammation of the delicate mucous membrane is often produced by the use of strong saline solutions in large quantities, passed through the nares under high pressure. While cleanliness is essential, mechanical means for attaining it are to be used with great discretion. There is nothing curative in their employment. All instruments for cleansing purposes, including the nasal douche with its many modifications, are only to be used in exceptional cases of aggravated catarrhal inflammation, with accumulated hardened secretions. The nasal spray apparatus, which throws a *very coarse spray* in the right direction into the anterior nares, is to be preferred.

The doctor concluded by saying, the time will not have been misspent, and the purpose of his lectures will be accomplished, if he has succeeded in convincing his hearers that *all* is *not* simply "nasal catarrh" that comes into their net, although his remarks were necessarily drawn out to some length, and occupied some time.

5. Another pamphlet, on "*Aphonia Due to Chronic Alcoholism, Paralysis of the Lateral Cicro-Arytenoids*," by Ethelbert Carroll Morgan, M. D., Washington, D. C., Clinical Professor of Laryngology in the Medical Department of Georgetown University, etc. Reprint from Journal American Medical Association, December 6, 1884. "There is no morbid condition involving the vocal organs possessing a more varied pathogeny than paralysis of the lateral cicro-arytenoid muscles, the functional aphonia of pre-laryngoscopic authors." It is a fact, generally admitted and frequently observed by the laryngologist, that motor disturbances of these muscles are the result of reflex influences of various diseases: anæmia, chlorosis, dysmenorrhœa, intestinal irritation,* rheumatism,† syphilis, diphtheria, hysteria, deafness, fright, and mental emotion. Palsy of the laryngeal muscles has been caused by lead,‡ arsenic,‖ phosphorus, opium,§ belladonna.¶

"The influence of certain substances taken in poisonous doses is exerted on the nerves and muscles of the larynx, as well as other parts, and loss of voice is a circumstance to be witnessed after using some powerful narcotics. antimony, mercury, arsenic, and other poisons of an exhausting character." Dr. Morgan gives the clinical history and data of two cases of laryngeal palsy, the result of habitual and excessive use of alcoholic stimulants.

6. An article *On the Different Kinds of Subjective Aural Sounds and Their Treatment*, by Dr. Ladreit de Lacharrière, in The Annals des Maladies de L' Oreille, du Larynx, etc., and published in the Journal of the American Medical Association, November 1, 1884, treats of the various types of tinnitus aurium produced in the different parts of the ear, giving the various characters and causes of these sounds, which are so annoying and distressing to the patient. Schwartz was the first to recognize the relations between these sounds and certain forms of mental disease characterized by hallucinations of hearing. In 1869, he, with Kopp, examined ninety-seven cases of insanity; forty-one were troubled with ear affections; that is, subjective sounds and acoustic illusions or hallucinations; twenty-six were affected by noises without deafness; six had hyperæmia of the handle of the malleus; eighteen had hallucinations without noises; twenty-two presented none of these symptoms. Besides these subjective sounds, there are others due to true sonorous manifestations in the interior of the body, as the vascular sounds from alterations in the blood, as chlorosis and anæmia, and in aneurism of the basilar artery. According to Hirtl, there is in man a capillary which passes to the promontory. Might not affections of the tympanum frequently induce alterations in this vessel? M. Lacharrière has frequently relieved patients of pulsatile sounds by compres-

* Voltolini, Wochenschr. f. d. ges Helk., Berlin, 1845, p. 454-59.

† Ziemssen's Cyclop. Pract. Med., vii., p. 946.

‡ A. H. Smith, N. Y. Med. Jour., 1873, xviii., p. 412.

‖ C. E. Sajou's, Arch. Laryngology, vol. iii., I. p. 58

§ Andral, Cours de Pathologie Interna, Par. 1836, i., p. 310.

¶ G. D. Gibbs, Diseases of the Throat and Windpipe, London, 1854, p. 102-4.

si n of the external carotid. "The application of the c ntinuous electric current is beneficial, particularl in passive co gestion from vascular atony; it excites contractility and causes blood stasis to disappear."

(*To be continued.*)

CORRESPONDENCE.

A Mare's Nest—with Eggs.

EDS. MED. AND SURG. REPORTER:—

My dear old friend Dr. Corson is, I am compelled to say, just a little tart in his opposition to Professor Horatio C. Wood on the temperance question. Temperance *in all things* is a good, yea, an admirable moral principle; but may there not be such a precept as *intemperate temperance?* and in this category I am constrained to view the pungent remarks aimed at the distinguished gentleman who stated that for the aged some form of alcoholic stimulant, taken at meals, was requisite to sustain the flagging powers and support a healthy digestive process and assimilation. Through this esoteric force the heart's action also is aided, though not unduly, to propel the vital current to the remotest portions of the frame, imparting to the whole man a vigorous but healthful rejuvenation. He gives statistics from the "Society of Friends," to sustain his objections, and the ages of persons in advanced life who lived and died without resorting to this exoteric power. Probably the Doctor is aware that the numbers of that "Society" are very small as compared with other Christian sects: and were time permitted I could adduce many, very many, more, from other religions denominations, as well as of those not sectarian, who are as free from intemperance of both eating and drinking as the Quakers, who have lived to an advanced age, in numberless instances much beyond most of those the Doctor quotes, under the daily employment of this aid to the enfeebled frame. That intemperate eating has caused more disease and death in the world than intemperate drinking, has long been a recognized fact; and what other sect is known to indulge more freely in this respect than the Doctor's pets? I was not aware until now that it was the proper thing to attach ideas of the "pure and undefiled" of earth as specially pertaining to one sect.

There are doubtless many good men and women, particularly the latter, among this denomination as among others, but they are not all paragons, and why they should be singled out from the "world's people," is an enigma, hard to unravel, for it has been my unfortunate "experience" through life to encounter more guile, to use no harsher term, beneath the sly, specious cant and garb of sanctity, than poor human nature exhibits on a broader field. To point the moral, it is only requisite to peruse and ponder the historical proofs of Billy Perno's characteristics, recorded by Macaulay.

But the question remains, is it sound doctrine to advance the teaching the professor assumes, and give stimulants to the aged, whose vital powers are impaired or flagging? For one, I unhesitatingly admit that I entirely concur in all he asserts, and cannot forbear to express a deeper respect for one who has the courage to enunciate a truth to a class of students who are present to learn the truth. If among these are *addle pates*, who will "strain at a gnat and swallow a camel" by distorting the meaning of words to foster their own depraved tastes, be it so; such are found everywhere. To the true thinker, they will come as words of wisdom, to be applied to the proper persons and at the proper times. In a practice of forty-five years, I have repeatedly saved and greatly prolonged many valuable lives, through the instrumentality of stimulants judiciously administered. Dr. J. Milner Fothergill says: "Alcohol may be used with benefit at bed-time by those who undergo much mental activity, and whose brains are exhausted. Here some alcohol exercises a distinctly soothing effect upon the brain, and procures a sound night's rest, where without it there would be a restless, disturbed, uneasy, and unrefreshing slumber. There exists no objection to the use of alcohol under these circumstances; neither is there much probability of the habit growing, except in rare cases where there are probably other determining factors."

The late Professor Samuel Jackson, of the University of Pennsylvania, was consulted many years ago by a gentleman of my acquaintance, then in his fiftieth year, for a complication of maladies threatening early dissolution, prominent among which were vertigo, dyspepsia, languor, debility, etc., etc. His advice was, after a thorough investigation of the case, that half an hour before each meal he should take a tablespoonful of whisky in a little water. This the patient continued through the remaining years of his life, with renewed health and vigor, and lived comfortably to the age of eighty-six.

JAMES L. TYSON, M. D.

Shadyside, Montgomery county, March 18, 1885.

NEWS AND MISCELLANY.

American Surgical Association.

The Secretary, Dr. J. R. West, notifies us that the meeting of the Association will be held in the Army Medical Museum, Washington, April 21, 22, 23, and 24, 1885.

The following papers will be presented:

"The Field and Limitation of the Operative Surgery of the Human Brain," by John B. Roberts, M. D., Philadelphia.

SYNOPSIS.

I. In Cranial Fracture.—1. What conditions demand incision of the scalp? 2. What conditions demand perforation of the skull? 3. What conditions render incision of the scalp unjustifiable? 4. What conditions render perforation of the skull unjustifiable?

II. In Intra-cranial Hemorrhage.—1. What symptoms demand perforation of the skull? 2. What symptoms render perforation unjustifiable?

*Journal Am. Med. Ass., Jan. 17, 1885 p. 72.

†Lancet.

III. In Intra-cranial Suppuration.—1. What symptoms demand perforation of the skull? 2. What symptoms demand incision of the membranes and puncture of the brain substance? 3. What are the limitations to operative search for pus?

IV. In Insanity.—1. What conditions demand removal of bone? 2. How long should such operative interference be postponed? 3. What conditions render removal of bone unjustifiable?

V. In Epilepsy.—1. What conditions demand removal of bone? 2. How long should such operative interference be postponed? 3. What conditions render removal of bone unjustifiable?

VI. In Cerebral Tumor.—1. What conditions should deter the surgeon from attempting excision?

The discussion of the paper will be opened by Fellows Hunter McGuire, Moses Gunn, J. C. Hutchison, and D. W. Yandell.

"An Experimental and Clinical Study of Air Embolism," by N. Senn, M. D., Milwaukee, Wis.

INTRODUCTION.

1. On the immediate cause of death by rapidly fatal embolism. 2. History of air embolism. 3. Intra-venous introduction of air. 4. Effect of the heart and respiration on the venous circulation. 5. Aspiration of air into the superior longitudinal sinus. 6. Experiments on same. 7. Practical suggestions concerning injuries of superior longitudinal sinus. 8. Immediate cause of death after intravenous insufflation of air. 9. Intra-arterial insufflation of air. 10. Clinical study of air embolism, illustrated by cases. 11. Experiments on intravenous and intra-arterial insufflation of air. 12. Remarks on experiments. 13. Prophylactic and therapeutic recommendations.

Fellows J. Collins Warren, C. B. Nancrede, W. H. Pancoast, and Christian Fenger will open the discussion of the paper:

"Nephrectomy: Its Indications and Contra-Indications," by Samuel W. Gross, M. D., Philadelphia.

The following conclusions are presented for discussion:

I. That primary extirpation of the kidney is indicated—1. In sarcoma of adult subjects. 2. In the early stage of tubercular disease. 3. In rupture of the kidney or of the ureter; and, 4. In benign tumors.

II. That nephrectomy should not be resorted to until after the failure of other measures—1. In urinary fistulæ of the kidney or of the ureter. 2. In protrusion of the kidney through a wound in the loin. 3. In recent wounds of the kidney or of the ureter made in the performance of ovariotomy, hysterectomy, or other operations. 4. In suppurative lesions. 5. In hydronephrosis and cysts; and, 6. In floating kidney.

III. That the operation is absolutely contra-indicated—1. In calculus and otherwise healthy kidney. 2. In sarcoma of children. 3. In carcinoma at any age, unless the disease can be diagnosticated and removed at an early stage; and, 4. In the advanced stage of tubercular disease.

Fellows L. McLane Tiffany, Christopher Johnston, A. Vanderveer, and D. W. Yandell, will lead in the discussion of the paper: "Nephrolithotomy," by L. McLane Tiffany, M. D., Baltimore.

CONCLUSIONS:

1. The operation not over-dangerous. 2. Diagnosis of kidney stone not always clear. 3. Incision down to, and exploration of kidney proper.

Fellows S. W. Gross, J. W. S. Gouley, T. A. McGraw, and P. S. Conner, will lead in the discussion: "The Healing of Arteries in Man and Animals after Ligature," by J. Collins Warren, M. D.

"A study of the various pathological changes which occur in and around the vessel, from the time the ligature has been applied until the process of cicatrization has fully completed itself. The ligatured artery is invested by a protective layer of new tissue formed from the periadventitial tissue, which, if well developed, gives great security against hemorrhage until the permanent cicatrix has grown sufficiently strong. This may be likened to the provisional callus of bone. There is also an internal growth or callus formed from several sources, namely, the intima to a slight extent, the media more largely, also from cells finding their way from the periadventitia at a late stage through the retracted ends of the vessel. The thrombus is a mere passive structure, takes no part in the growth, but is protective, and affords an excellent medium for the new tissue to germinate in. When the provisional part of the internal callus has disappeared, we find remaining a cicatrix closely resembling the three coats of the artery, and affording by virtue of its peculiar structures an equally effective resistance to the pressure of the blood-column. The ligament which unites the two ends of the vessel represents in part the residue of the external callus, but also a portion of the walls of the vessel which have been absorbed during the inflammatory process. A vessel successfully ligatured in its continuity cannot, therefore, be said to have been 'ulcerated' into two separate portions, but must be conceived of as a hollow tube which has solidified into a solid columnar mass of tissues, a considerable portion of which subsequently shrinks into a cord."

Fellows N. Senn, F. S. Dennis, Moses Gunn, and Stephen Smith, will lead the discussion.

"The Immediate Cure of Fistula in Ano," by Stephen Smith, M. D., New York.

1. By the use of compressed sponge. 2. By incising the fistula and abscess, dissecting out the lining membrane of the abscess and fistula, and closing the entire wound immediately with the suture used in perineal rupture.

The discussion will be opened by Fellows John H. Brinton, David Prince, N. P. Dandridge, and Alan P. Smith.

"Etiology of Tetanus," by P. S. Conner, M. D., Cincinnati.

"The various theories that have been proposed, giving especial attention to that assuming the disease of bacterial origin, it being produced through the medium of blood rather than the nerves."

The discussion will be opened by Fellows T. G. Morton, W. S. Tremaine, J. H. Packard, and R. B. Bontecou.

"A Case of Cholecystotomy," by C. T. Parkes, M. D., Chicago.

Report of case, and general consideration of subject.

Discussion by Fellows Donald Maclean, J. Ewing Mears, and E. H. Gregory.

"Some Points in the Surgery of the Hypertrophied Prostate," by J. W. S. Gouley, M. D., New York.

1. The determination, by physical exploration, of the size of the hypertrophied prostate, and the character of the obstruction to urination. 2. The circumstances under which medicinal treatment possesses value. 3. The selection of catheters. 4. Certain accidents of catheterism, especially false routes. 5. Evacuative catheterism, its good effects and its dangers. 6. Vesical irrigations to combat cystitis, their use and abuse. 7. Prostatotomy and prostatectomy, their indications and contra-indications.

To lead in the discussion, Fellows S. W. Gross, Hunter McGuire, T. F. Prewitt, and J. W. White.

"Phosphorus Necrosis: It Causes, Treatment, and Prevention, with Reports of Cases," by J. Ewing Mears, M. D., Philadelphia. Synopsis not received.

Discussion by Fellows L. A. Sayre, R. A. Kinloch, and James McCann.

For the information of Fellows who desire to attend the American Medical Association at New Orleans, the following facts are given:

The last day of the session of the Surgical Association is April 24; the first day of the Medical Association is April 28.

Through routes to New Orleans from Washington, by Cincinnati, Louisville, and Nashville: round trip, $37.50. By Lynchburg going, Cincinnati returning, $48.00; limit of tickets, fifteen days; five days' limit of return allowed; ticket must be stamped by agent at New Orleans.

In relation to chartering a hotel or sleeping car for the round trip, the following memorandum has been received from the Pullman Co.:

"Rate for a hotel car is $65.00 per day for the entire time the car is absent, and for a sleeping car $50.00 per day, allowing a drawback, if the cars are lying over unoccupied, of $30.00 for hotel, and $25.00 for sleeping car. We would be willing to furnish the commissary at the original cost, with ten per cent. added to the original bills for handling it. We would supply conductor, cook, and sufficient waiters to handle the business. There would be no further expense so far as this company (Pullman) is concerned, if the party go and return by same route; but if they go via Danville, and return via Wilmington, or vice versa, they would have to pay the freight charges on the trucks between these points in both directions."

A sleeping car, or hotel car, will hold twenty-eight persons. If the members of the Association desire to make up a special party, and to have a car to themselves, they should notify Surgeon John S. Billings, Committee of Arrangements, Washington, as soon as possible, as such an arrangement must be made not later than April 15.

Dr. Billings will secure hotel accommodations for members who write to him for that purpose.

The approaching meeting promises to be an exceptionally interesting and valuable one, and every Fellow should be in attendance.

—Two cases of epileptiform tic have recently been reported cured by nitro-glycerine.

International Medical Congress.

The following rules and provisional list of officers of the Ninth International Medical Congress, to be held in Washington in 1887, are published by order of the Executive Committee:

Rules.—1. The Congress will be composed of members of the regular medical profession, and of such persons as may be specially designated by the Executive Committee, who shall have inscribed their names on the Register of the Congress, and shall have taken out their tickets of admission. As regards foreign members, the above conditions are the only ones which it seems, at present, expedient to impose.

The American members of the Congress shall be appointed by the American Medical Association, by regularly organized State and local medical societies, and also by such general organizations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynecological, Ophthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association; each of the foregoing Societies being entitled to appoint one delegate for every ten of their members.

All societies entitled to representation are requested to elect their delegates at their last regular meeting preceding the meeting of the Congress, and to furnish the Secretary-General with a certified list of the delegates so appointed.

2. The work of the Congress is divided into nineteen sections.

3. The general meetings will be reserved for the transaction of the general business of the Congress, and for the addresses or communications of scientific interest more general than those given in the sections.

4. Questions which have been agreed upon for discussion in the sections shall be introduced by members previously nominated by the officers of the section. The members who open discussions shall present, in advance, a statement of the conclusions which they have formed as a basis for debate.

5. Notices of papers to be read in any of the sections, together with abstracts of the same, must be sent to the Secretary of that section before April 30, 1887. These abstracts will be regarded as confidential communications, and will not be published until the meeting of the Congress. Papers relating to questions not included in the list of subjects suggested by the officers of the various sections will be received. Any member, after April 30, wishing to bring forward a subject not upon the programme, must give notice of his intention to the Secretary-General at least twenty-one days before the opening of the Congress. The officers of each section shall decide as to the acceptance of any communication offered to their section, and shall fix the time of its presentation. No communication will be received which has been already published, or read before a society.

6. All addresses and papers, read either at general meetings or in the sections, are to be immediately handed to the secretaries. The Executive Committee, after the conclusion of the Congress, shall proceed with the publication of the

Transactions, and shall have full power to decide which papers shall be published, and whether in whole or in part.

7. The official languages are English, French, and German.

In the sections no speaker will be allowed more than ten minutes, with the exception of readers of papers, and those who introduce debates, who may occupy twenty minutes.

8. The rules, programmes, and abstracts of papers will be published in English, French, and German.

9. The officers of the General Committee on Organization are a president, such number of vice-presidents as may hereafter be determined on, a secretary-general, and a treasurer; and those elected to these positions will be nominated by the General Committee to hold the same offices in the Congress. All vacancies in these offices shall be filled by election.

10. There shall be an Executive Committee, to be composed of the President, Secretary-general, and Treasurer of the General Committee, the Chairman of the Finance Committee, and of four other members to be elected by the General Committee. The duties of the Executive Committee shall be to carry out the directions of the General Committee, to authorize such expenditures as may be necessary, and to act for the General Committee during the intervals of its sessions.

11. There shall be a Standing Committee on Finance, to be appointed by the president, subject to the approval of the Executive Committee. The Chairman of the Finance Committee shall be *ex-officio* one of the vice-presidents of the Congress, and also a member of the General and Executive Committees. The treasurer shall be *ex-officio* a member of the Finance Committee.

12. Presidents of the sections shall be *ex-officio* members of the General Committee.

13. The Committee on Organization of each section shall be composed of a president, such number of vice-presidents as may be deemed expedient, of one or more secretaries, and of members forming a Council.

Annual Commencement of the Jefferson Medical College.

The 60th Annual Commencement of the Jefferson Medical College was held in the Academy of Music April 2. While the large auditorium was rapidly filling, the interim was whiled away pleasantly by the music of the Germania Orchestra, under the baton of Henry Fehling, Jr Promptly as the hour of noon approached, the faculty and graduating students filed in through a side entrance, and formed in rows on the stage, the front of which was beautifully adorned with flowers and plants. The exercises were opened with prayer by Rev. I. L. Nicholson, D. D. During the solemn words of the invocation, the students bowed in reverent attention. A selection by the orchestra followed, and then the all-important moment, which every one of the 176 members of the graduating class looked forward to with breathless interest, arrived.

Dr. E. B. Gardette, President of the Board of Trustees, delivered his address to the graduates and conducted the ceremony of conferring the degrees. The awarding of twelve prizes by Professor DaCosta, the Dean of the Faculty, took place subsequently. The names of the winners were kept entirely secret until the last moment, and all the more interest was created in this part of the exercises. There were disappointments as well as congratulations over the result, but in every instance the recipients of prizes were spontaneously applauded.

The prizes were as follows:

1. Faculty prize of $200, for the highest attainments in all departments, to Peter McCahey, of Pennsylvania.

2. A prize of $100, by Lea Brothers & Co., for the best thesis, to Andrew J. Downes, of Massachusetts; with honorable mention of the thesis of Samuel V. Able, of Pennsylvania.

3. A prize of a gold medal, by R. J. Levis, M. D., for the best report of his surgical clinics at the Pennsylvania Hospital, to Max J Stern, of Pennsylvania; with honorable mention of the report of Frank B. Day, of Indiana.

4. A prize of a gold medal, by Thomas G. Morton, M. D., for the best report of his surgical clinics at the Pennsylvania Hospital, to Joseph D. Orr, of Pennsylvania; with honorable mention of the reports of Leonard A. Hudson, of Delaware, and John Edward Oliver, of Missouri.

5. A gold medal, for the best essay on a subject pertaining to the practice of medicine, to Max P. Van der Horck, of Minnesota; with honorable mention of the theses of T. Briggs Wright, of Kentucky, and G. Orlando Tunison, of New Jersey.

6. A gold medal, for the best anatomical preparation, to Samuel Shimavonian, of Armenia.

7. A gold medal, for the best original research in the chemical laboratory, to Andrew B. Ireland, of Pennsylvania.

8. A case of instruments, for the best original research in the Materia Medica laboratory, to Henry M. Beatty, of New Jersey; with honorable mention of the theses of John A. Dougherty, of Pennsylvania, and William H. Baldinger, of Texas.

9. A case of instruments for the best essay on subject pertaining to physiology, to Theodore G. Davis, of New Jersey, with honorable mention of the essay of George S. Brown, of Missouri.

10. A case of instruments for the best essay on a subject pertaining to surgery, to Albert C. Getchell, of Maine.

11. A case of instruments for the best essay on a subject pertaining to obstetrics, etc., to Charles F. Shollenberger, of Pennsylvania.

12. A case of instruments for the best essay on a pathological subject, to Martin P. Rively, of Pennsylvania; with honorable mention of the essay of Robert Coyle, of Pennsylvania.

The valedictory address was delivered by Dr. William H. Pancoast. In speaking of the duties of physicians, he said: "Our profession is now standing sentinel and warning the community of the impending danger of cholera for the coming year, suggesting the necessity for cleanliness and purity in cities, villages, and homes; pure water, fresh air, and clean streets. Rebreathed air is poison; impure water sometimes spreads disease as fire explodes gunpowder. Filth, idleness, and gluttony are the friends of death."

Cigar Smoking and Cancer.

Apropos of the reports (very commonly believed in this country among the public) that General Grant's condition is due to cigar smoking, we quote the following *sensible* remarks from the *Brit. Med. Jour.*, March 14, 1885:

"Whilst all who read the newspapers in any country must have learned, with regret, that the gallant general who saved his country from disunion, and guided its destinies for so many years, is suffering from a painful and deadly malady, it is very advisable that capital should not be made by a certain party out of the alleged cause of his illness. It has been distinctly reported in several journals that General Grant is suffering from cancer of the tongue caused by smoking. A little knowledge of pathology is sufficient to demonstrate that smoking cannot cause cancer, although the irritation of a pipe sometimes sets up ulceration of the lip, which, when of very long standing, may become cancerous, provided that the patient has a hereditary tendency to cancer. There is no evidence whatever that cigar-smoking causes cancer of the tongue. Mr. Butlin, the author of some of the most recent observations and statistics on cancer of the tongue, has shown that the proportion of men to women suffering from that disease is nearly six to one, but that it occurs in men who neither drink nor smoke, whilst it is as rare among women of the most masculine habits as amongst other females. Even the irritation of a broken or decaying tooth can only be an occasional exciting cause, since this condition is as common amongst women as amongst men, whilst cancer of the tongue is, fortunately, rare, out of all proportion to cases of decayed teeth. There can be no doubt that a man with a tooth irritating his tongue ought to have it removed. It is equally certain that no smoker who has a sore on his tongue ought to persist in the use of tobacco until that sore is cured. But the risk of cancer through smoking is so infinitesimal, as to be perfectly useless as an argument for the anti-tobacconists."

Jefferson College Alumni.

The annual oration before the alumni of Jefferson Medical College was delivered in the lecture-room of the college, by Professor J. W. Holland, of Louisville, Ky., on the subject "Our Personal Equations."

Dr Addinell Hewson, the president, addressed the alumni on the occurrences of the past year, referring eloquently and feelingly to the deaths of Professor Samuel D. Gross, Dr. Ellsberg, of Dartmouth College, and Dr. Ellerslie Wallace, all alumni.

The committee on the endowment of the Samuel D. Gross Chair of Pathological Anatomy reported $5,504 in their possession, and were continued in office.

The officers for the ensuing year were elected as follows:

President—Dr. Addinell Hewson.

Vice-Presidents—Drs. R. J. Levis, William H. Pancoast, Roberts Bartholow, and Ellwood Wilson.

Corresponding Secretary—Dr. R. J. Dunglison.

Recording Secretary—Dr. T. H. Andrews.

Treasurer—Dr. N. Hatfield.

It was announced that the orator for next year would be Dr. W. H. Warder, of this city, who was called upon for a few remarks. Dr. Pancoast also spoke. After the business of the evening, a reception was given Professor Holland at the St. George Hotel. There was a general gathering of the doctors. A collation was disposed of, and speeches were made by various noted men in the profession.

Suspicious Cases of Asiatic Cholera.

At a meeting of the State Board of Health of Kentucky, held March 16 and 17, at Louisville, the following recommendations were reported:

"The following conditions shall be held to justify a suspicion of cholera, and to require from sanitary authorities the same preventive treatment as if known to be cholera:

"1. Any case of disease resembling cholera and attended with 'rice-water evacuations' shall be reported and treated either as cholera or as a suspicious case.

"2. Any case respecting which reputable and experienced physicians may disagree as to whether the disease is true Asiatic cholera or not, shall be reported and treated as suspicious.

"3. Any case rumored to be cholera, and respecting which efforts are made to conceal its existence, full history, and true nature, shall be reported and treated as suspicious.

"4. Any notable and exceptional increase in the number of cases of, and of deaths by, such bowel disorders as cholera morbus and diarrhœa, shall be promptly reported."

Therapeutic Notes.

Platt's Chlorides.

With the approach of summer, and of a summer in which we are threatened with Asiatic cholera, disinfectants must occupy aprominent position. Of these, we have met with none that seems more effective than "Platt's Chlorides." It rapidly destroys offensive odors, and counteracts the development of germ life. Whether for use in the sick-room or the purposes of general household disinfection, it is a cheap, cleanly, and efficient agent.

Horsford's Acid Phosphate.

A nerve stimulant without depressing reaction cannot fail to be appreciated in this nervous nation of ours. Such a preparation is the Acid Phosphate of Professor Horsford. In great heats, in exhausting diseases, in the languor of convalescence, and in the prostration following alcoholic and other excesses, we have seen it employed with immediate and gratifying good results. It is, moreover, palatable to the taste, and agrees with the most sensitive stomachs.

Rhode Island Medical Society.

At the recent quarterly meeting of this Society, held at Providence, March 19, the following papers were read: "Enteric Fever Occurring in Pregnancy," by Dr. Robert F. Noyes, of Providence; "Report of a Case of Pyosalpinx," by Dr. George W. Porter, of Providence; "Rachitis," by

Dr. B. R. Lymonds; "Cancer of the Intestine," by Dr. E. B. Smith; "Fatal Case of Embolism of the Pulmonary Artery," by Dr. J. S. Hunt.

The following delegates to the next meeting of the American Medical Association were elected: Drs. H. Canfield, J. W. Sawyer, O. C. Wiggin, A. G. Browning, G. H. Eldredge, F. B. Fuller, Benjamin Greene, A. Ballou, George Kenyon, Job Kenyon, H. G. Miller, Charles O'Leary, G. A. Pierce, Anita E. Tyng, of Philadelphia, H. Terry, S. Hunt, W. E. Anthony, and W. J. Burge.

Professional Secrets.

The *Lancet* says very truly: "Ought the medical adviser of a patient to betray the secrets confided in him? Without hesitation or reserve, we say 'No,' in so far as those secrets *are confided by the patient.* For example, the manner in which a patient contracted a particular malady, and the errors of life that led to it, being confided by the patient, are matters communicated in confidence, and that confidence ought not to be abused. No court of law can exercise any legal right to extort such secrets. Meanwhile the fact that the patient suffers, or has suffered, from a disease of body or mind, is not a subject of communication. The medical practitioner diagnoses the disease, and we do not think that such facts are 'secrets,' although no honorable man would mention them unless compelled to do so."

Feeling against Foreign Medical Students.

From a foreign exchange we learn that the animosity that has long since been brooding between the French and Germans appears to have extended to all foreigners, especially the English and Americans, and the spirit of exclusiveness on the part of the French even manifests itself in the medical profession. The Paris Municipal Council, however, decided at its last meeting, by forty-one votes against two, that foreign medical students who have taken their inscriptions at the Faculty of Medicine will continue to be admitted as heretofore, as internes or externes of hospitals, but for the functions of hospital physician or surgeon, or for the prosectorate, the candidates will have to be naturalized.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended March 14, 1885.

Bailhache, P. H., surgeon. Detailed as President Board of Examiners, March 10, 1885.

Purviance, George, surgeon. Detailed as member Board of Examiners, March 10, 1885.

Austin, H. W., surgeon. Detailed as Recorder, Board of Examiners, March 10, 1885.

Items.

—In the *Brit. Med. Jour.*, Dr. W. F. Smartt reports a case of bullet-wound involving right lobe of liver, extraction, recovery.

—Dr. Weber, of Darmstadt, has used apomorphine, in doses of one-twelfth of a grain three times a day, in chronic asthma, with success.—*Chi. Med. Journal.*

—We understand that *The Index Medicus* is to be continued under the same conditions as heretofore, under the auspices of the publishing house of Parke, Davis & Co.

—Prof. Lucæ died recently at Frankfort-on-the-Main. His anatomical and anthropological works achieved much for the advancement of science, and rendered his name widely known.

—It is said that Dr. Koller, the discoverer of the anæsthetic properties of cocaine, has recently fought a duel. His antagonist, one of Billroth's assistants, received a wound that may prove fatal.

In the *Lancet*, March 14, 1885, Mr. Rushton Parker reports a case of compound dislocation of the elbow-joint, with division of the main artery and vein, healed with restoration of all movements.

—Thallin, the new antipyretic, is found by Dr. C. Alexander to be better than kairin, but not so active as antipyrin, over which latter it has only the advantage of smaller dosage and more agreeable taste.

The *Indian Medical Gazette* says: "As in England, *melanotic cancer* is an ordinary cause of death in Bengal among gray and white horses. We can scarcely drive through Calcutta without seeing animals having the characteristic globular tumors beneath the skin."

—Dr. Hérard, physician to the Hôtel Dieu, and Dr. Bernutz, physician to the Charité Hospital, having attained the limit of age for hospital physicians, have been placed on the retired list, and the title of honorary hospital physician has been conferred upon them.

—During the last few months practitioners in Glasgow have had an opportunity of studying two very typical cases of leprosy, in which the signs of all the varieties of the disease were manifest—the tubercular, macular, anæsthetic, and ulcerating forms. At one of the societies also the leprosy bacillus has been exhibited.

—At a meeting of the Glasgow Philosophical Society, Prof. McKendrick and Mr. J. J. Coleman gave an account of some recent experiments on the effects of low temperatures on the putrefactive process and on vital phenomena. They found that the continued exposure of putrescible fluids to a temperature of 120° below zero did not prevent putrefaction, showing that the micro-organisms causing putrefaction are not killed even by this extreme cold, a temperature probably lower than any prevailing in the Polar regions, so that micro-organisms may exist even there. They hoped to continue their experiments with an atmosphere at a temperature of 150° below zero.

—The following case, illustrating the effect of cocaine is taken from the *Wiener Medicinische Wochenschrift.* On December 25 last, Dr. Weiss, of Vienna, was called in to Professor S., who had scalded his eyes, forehead, nose, cheeks, and upper lip, owing to an explosion of the apparatus during an inhalation; pain was very severe. He first ordered linen soaked in oil, to be laid on, and oiled bandages on the top of these. Then he ordered the application of carron oil and a 2 per cent. solution of hydrochlorate of cocaine. As soon as the scalded spots were painted with the above named solution, the pain disappeared at once, and did not return.

THE

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

A RÉSUMÉ OF THE TOBACCO QUESTION.

If the importance of a subject were to be estimated by the attention it has commanded, tobacco would hold a foremost position; and judged by the bitterness of its opposition, would be the greatest enemy that menaces the health of humanity or endangers the stability of society. It has been opposed by moralists, physicians, orators, preachers, societies, and synods. The subject, entering largely into scientific, religious, and miscellaneous literature of the present, is found fossilized in fancies of centuries past. Since the first opposition that followed the introduction of the tobacco habit into England by Raleigh, until the present time, it has constituted a theme of unending controversy. Yet notwithstanding threatenings from the pulpit and blasts from the press, it has seemed proof against attack, and has apparently grown in a ratio to its difficulties, so that tobacco is now, next to salt, the most universally consumed of all substances—animal, vegetable, or mineral. After its introduction into Europe, while it gained a ready popularity among the Spaniards, it was received with anything but favor in England, where there was at once recruited a standing army that has waged unceasing warfare against tobacco. So intense was the repugnance to it that one of the early writers referred to it as "hellish, damned, and devilish;" and among its distressing effects it was supposed to "exsiccate the windpipe, lungs, and liver; annoy the milt, and scorch the heart." Its production in England was restricted by a law in 1660 to a small amount for medicinal purposes.

One of the foremost opponents was King James, who was a violent enemy to the use of tobacco in any of its forms, objecting to it chiefly, it seems, because of its first employment by savages, and again on account of its uncleanliness. King James handled the subject without gloves, and wrote of the pipe as "a perpetual stinking torment, the black fumes thereof nearest resembling the Stygian smoke of the bottomless pit."

Coming up to later times, tobacco had made a great advance in popularity, and its use was very common among literary men in the days of Goldsmith and Johnson, who both smoked. Milton, Addison, Swift, and Burns also wrote under the influence of tobacco. Carlyle was greatly addicted to the habit. Charles Lamb's physician compelled him to abandon smoking, and while enjoying his last pipe he penned his famous Ode to Tobacco.

Singularly, Shakespeare makes no allusion to the tobacco habit or the substance itself, unless the "deadly hebenon," the "leprous distilment" which was poured into the sleeping king's ear (Hamlet, Act I, Scene V.) was the oil of tobacco, as some commentators have understood it.

The name nicotiana tabacum is said to have been derived from that of Jean Nicot, who took seeds from Portugal to France in the year 1560, and from tobago, or tobaco, the pipe of the natives in Yucatan.

Of the history of this captivating weed nothing is definitely known before the time of the early navigators to this continent, when it was found in Central America, being well-known to the tribes inhabiting the new-found world. There

appears to be some traditional evidence of its previous existence in the East, but positive knowledge is wanting to establish the fact that its use or culture were known prior to the discovery of America. The first analysis of tobacco was made in 1809 by Vauquelin, and the active principle of nicotine isolated by Posselt and Reinmann in 1828. The proportion of this principle is variously stated as being from two to eight per cent., as high as twelve per cent., and other authorities place the proportion of nicotine at one-tenth of one per cent.

Of the various modes of taking tobacco, snuffing has been popular in times past among the poliler classes, particularly in Europe, but of late years has been gradually superseded by smoking and chewing, and in this country has become almost obsolete. The practice of "rubbing" is very common among the poor whites of the South, and in mining localities of the North. Along the mining districts of the Monongahela Valley an enormous quantity is consumed in this way, every grocery-store having its snuff caddy. Foreigners are far less habituated to the habit than American women. The greatest number of tobacco users prefer to smoke the weed in pipe or cigar, or chew it in the form of the manufactured plug. In some of the manufactured tobaccos found in the shops, the tobacco forms the smallest part of the article sold; such substances as elm bark, liquorice, figs, glycerine, molasses, and aromatics entering into it in proportions which vary from twenty-five to ninety per cent. Few of the tobaccos probably are free from adulterations, some of them hurtful, others being innocuous.

The writer learns from responsible sources that the practice is not uncommon among cigar-makers to syringe cheap fillers with narcotic substances. A dark-colored wrapper then being used, the deception is complete, and the inferior article passes for a higher-priced cigar, which in its appearance it closely resembles. It is, therefore, possible that the poisonous adulterations in tobacco and cigars may often be responsible for deductions made in regard to the effects of smoking and chewing.

An agreeable flavor is imparted to cigars by the Tonka bean and rum; and they are made to burn more rapidly by the addition of nitrate of potassium. The odor of smoking tobacco is improved by deer's tongue (*Liatus Odoratissimum*), which grows in the Southern States, and contains cumarin the active principle of Tonka bean. The most common adulterative of snuff is lime.

Tobacco has a peculiar taste, which to one unaccustomed to it is extremely novel and unpleasant. Smoked or chewed, it produces a flow of saliva and of the gastric juice. Where no tolerance has been established, it may cause nausea and vomiting. The intestinal secretions are excited, and peristalsis induced.

There are some diuretic and diaphoretic effects produced. The pulse is accelerated, and the face may be slightly flushed—more blood is sent to the brain, and any mind-work is more easily performed. A person before dull and listless becomes more cheerful and talkative.

The symptoms are those of a gentle stimulation which is not followed by depression. The inclination to sleep is for the time removed. These facts have been deduced from a small quantity smoked or chewed. When the amount used is increased and continued, digestion will be impaired, the circulation disturbed, the action of the heart rapid, irregular, and feeble, constituting what is known as the "tobacco heart."

Constipation is likely present, from atony of the muscular wall of the intestine.

The condition of a person using tobacco beyond the bounds of moderation is characteristic. He has a nervous, anxious manner, easily loses his self-possession, is excessively sensitive and impressionable; he cannot remain composed, a slight emotion produces extreme flushing of the face, with a sense of heat; he becomes embarrassed from the least cause. On any occasion of excitement, respiration is rapid and suppressed, and the heart is in a tumult, beating rapidly and irregularly; the increase in the number of beats on assuming the erect from recumbent position is exaggerated and sympathetic; saliva, which the subject swallows, constantly pours into the mouth.

This train of symptoms is observed particularly in those who have a tendency to vascular excitation, while in persons of a sluggish, bilious temperament, dyspepsia, a disinclination to manual or mental work, a morose frame of mind, poor physique, sallow skin, and loss of vivacity, are the conspicuous symptoms of nicotism.

When the tobacco is swallowed in poisonous quantities, it causes severe burning in the throat, and creates the most distressing nausea and sinking sensation at the stomach, together with purging and general muscular relaxation. After a brief stimulation, the circulation is depressed, the pulse becoming feeble and irregular, and may be very slow—reduced, perhaps, to fifty or forty.

The effects of tobacco in small and large doses are thus stated by Fiske, in his treatise on alco-

hol and tobacco: "A small stimulant dose quickens the pulse; a poisonous or narcotic dose renders it frequent and feeble, and finally reduces the frequency." A dose of pure nicotine stops the heart. The face is pallid, and the skin cold and damp. There is dimness of sight, with contracted pupils, "which are at last generally dilated." (Ziemssen's Cyclopedia, article Nicotine.) The temperature is reduced. The subject may retain sensibility or be in an apathetic or unconscious condition. Convulsive twitchings may occur before death.

As to the effects of tobacco on the sexual functions, it stimulates in small, depresses in large quantities.

Acute cases of poisoning from tobacco, smoked, snuffed, or chewed, are not common. A case is recorded where death occurred from smoking seventeen pipes in succession, and another in which a half-ounce chewed resulted fatally. (Ziemssen's Cyclopedia, article Nicotine, Vol. xvii.)

Its excessive use in any of the three forms may sometimes produce slight forms of poisoning, evidenced by nausea, weakness, transient pallor, etc., and long continued may excite disturbance of a functional character in the circulation, nervous system, and nutrition.

Several cases are on record, one occurring some time ago in Norwich, Conn., in which the abuse of tobacco gave rise to most extraordinary symptoms. The following is from the *Norwich Bulletin:* "Then followed a season of derangement and visions, less terrorizing than the alcohol frenzy, but annoying and remarkable. He saw black flies in myriads in the room, millions of golden-hued beetles. He saw crowns, armor, and bric-a-brac of all sorts. During one entire day the atmosphere was yellow; another, cloudy veils shut out from his view surrounding objects."

Three cases of delirium tremens have been reported in St. Thomas' Hospital, London, attributed to abuse of tobacco.

The action of tobacco when applied to an abraded surface is similar to that from other modes of administration, nausea, muscular relaxation, depression, etc., being produced. Many cases of poisoning have occurred from the external application of tobacco in the treatment of skin diseases and extreme and fatal depression has followed the injection of tobacco into the rectum.

The effects of tobacco upon the human organism obviously depends upon the quantity taken.

A series of articles which appeared in the *Atlantic Monthly* many years ago, by James Parton, entitled "Does it Pay to Smoke?" evidenced such confusion in the mind of the author as to the physiological effects of tobacco and its relation to the health and happiness of man, that a little treatise by James Fiske, of Cambridge, Mass., was afterwards published, correcting the misstatements of Mr. Parton.

Mr. Fiske laid great stress upon the fact that large and small quantities of tobacco act in modes directly opposite to each other, that narcotics in small doses do not act as depressants, but as stimulants, producing the exect reverse of a narcotic effect, as generally understood.

That depression follows stimulation is a favorite argument with those who are convinced that tobacco is absolutely and unqualifiedly injurious, while they forget that the events following stimulation depend upon the degree of the stimulation. Reaction, it is true, occurs, but reaction is not necessarily depression. Mild stimulation will be succeeded by a return to the normal or merely a cessation of the action of the stimulant. The reaction from over-stimulation will fall below the normal, constituting depression.

These facts are generally so well understood that it is useless to dwell upon them. We know to stimulate a muscle by exercise it will be developed; a little mustard may be taken with meat with positive benefit, and it is equally true that too much exercise and too much mustard will, in the one case, weaken the muscle, and in the other impair digestion.

Anstie refers to the difference between a mild rubefacient and a blister applied to the skin—the one followed by no depression, the other unmitigated depression from the start. "From good wine in moderation there is no reaction whatever." (Brinton's Treatise on Food and Digestion.)

It has been a question as to what amount constitutes excess in the use of tobacco, or rather what is not excess. Those are undoubtedly cases of abuse mentioned by Lizars in his "Use and Abuse of Tobacco," where the subject "became partially but generally paralyzed in mind and body," and ultimately died a driveling idiot or an imbecile paralytic; also those are certainly instances of excess mentioned by other writers, in which the unfortunate victim became blind, deaf, cowardly, and emasculated. The limit of moderation can only be fixed according to the peculiarities of each individual.

With most persons, "three cigars or half a dozen pipes will not be excessive" (Ziemssen's Cyclopedia, article Nicotine), but this quantity no doubt can be exceeded by many without symp-

toms of nicotine poisoning developing. There are tobaccos so strong that they are altogether unfit for use, and a proper selection should be made, as in anything else. The symptoms produced by tobacco differ with the varying susceptibilities of different persons—some use it with impunity, others must employ it cautiously.

"Doubtless there are many persons who use tobacco in one or more of its forms who experience few or none of its evils, and whose constitutions seem pooof against its mischievous effects." (National Dispensatory, Stille & Maisch.)

The constitution of the person is an important element in the estimate of what is a moderate quantity.

The effects of tobacco will also be greatly modified by the habits and life of the individual. What would be harmful in a man of sedentary habits, would perhaps give no annoyance if the person led an active out-door life. The writer learned from a student of medicine who suffered from palpitation of the heart and a group of unpleasant symptoms believed to be caused by the abuse of tobacco, that during the summer vacation, with active exercise and entire change of habits, these symptoms altogether disappeared; the equilibrium of the circulation was restored, notwithstanding a greater quantity of tobacco was consumed.

There are instances which go to show that in certain persons under particular conditions, the poisonous effects of tobacco could hardly be produced by any ordinary quantity, smoked or chewed. The writer has seen three cases in which the individual habitually swallowed the juice from the tobacco without any apparent injurious results. One, a most disgusting case, was observed in the insane department of Blockley Almshouse, in a patient whose passion for the substance was so strong that he not only ate what tobacco he could get, but had at different times availed himself of the opportunity, when unseen by the attendants, to take the contents of a cuspidor used by other chewers. Of the other two cases, one was a farmer, the other a shoemaker, both well advanced in life, and, as far as they knew, suffered no inconvenience from the habit which they had long practiced.

Sailors, whose health is proverbial, are greatly addicted to the pipe. It is the one great remedy above all others that they resort to to relieve the tedium of their lives, and they use it far in excess of what would usually be considered a limit of safety. Their rugged experiences seem to purchase them an immunity against its poisonous effects. It is said that Burmese children smoke while yet in their mother's arms, and it does not appear to impair their health or retard their development. Again, its excessive use is associated with physical superiority in the rural Turks, and remarkable longevity in our Southern darkies. Notwithstanding these facts, moderation is the only line of security from the unpleasant effects of tobacco for the general run of persons; and there are those who, perhaps, from an idiosyncracy, suffer even from its most temperate use.

The question of the harmful effects of tobacco has been a fruitful theme of controversy, and having a social and moral aspect, it has had a range wider than purely scientific discussion. The shelves of every library attest the fertility of the subject. From the despondent magazine article to the scientific treatise, it has been handled in every conceivable way, and from every possible standpoint.

It has been charged that it is useless and an unnecessary expense to the consumer, that it is filthy, degrading, and injurious. These, however, are terms of the argument, and facts must be shown to prove them to be always justifiable. As to whether the use of tobacco is filthy, degrading, or demoralizing, depends upon the manner of its employment. It is unpleasant to find a person using tobacco with a total disregard for cleanliness, for time, place, and other circumstances, and it is equally disagreeable to see one commit endless improprieties at the table. That "everything should be done decently and in order," applies as well to the use of tobacco as to other matters.

The statement that tobacco is injurious, is an obvious one, and might be made of any substance in nature in this unqualified way, being in one sense true, in another wrong. It would be as difficult to show that tobacco is never in any quantity harmful, as to prove that in moderation as a rule it is ever so. Certainly the only middle-ground, and the only question or issue of interest in the matter, is whether moderation in its strictest sense tends to injure or destroy either mind or body.

Chewing, no doubt, in many persons, on account of the frequent spitting, may weaken the system, though as a rule its use in this mode, if not carried to excess, is not incompatible with good digestion and the highest state of health, as we frequently find in inveterate chewers. Smoking is the pleasantest, cleanest, and likely the proper way to use tobacco. One form, however, the cigarette, is exceedingly objectionable. These

cigarettes, composed often of the vilest material, are enclosed in paper, the smoker inhaling the fumes of the burning paper and tobacco. The cigarette is also dangerous from the fact that the smoker can fill up interstitial moments in which a cigar would not be lighted, thus leading to the greatest excess. In the *Philadelphia Weekly Times* there appeared in the issue of June 4, 1881, an interview with several leading physicians of Philadelphia on the rapidly-growing practice of smoking cigarettes. Dr. Bartholow thought: "It is an evil that will tend to the deterioration of the race. It is the most pernicious form in which tobacco is used, and produces impaired digestion, small and poor muscles, and lack of capacity for sustained effort." Drs. Da Costa, H. C. Wood, and Pepper, believed it a most harmful practice.

The pipe is in many respects preferable to the cigar. The smoker can certainly derive a greater degree of comfort from it, and has the advantage of being more cleanly, if properly attended to. The common clay pipe, which can be bought for a few cents a dozen, is the best. The pipe, when used for a few times, should be thrown away or thoroughly burned out. Nothing is more unpleasant than the odor of an "old pipe," in which has collected the acrid principles of the tobacco. By placing a clay pipe among live coals, in a few minutes all the vegetable matter and stain is burned out, and it is as pure as when new. Many smoke vile cigars or a bad pipe, and really never learn the comfort and luxury of a mild, clean smoke. It is these persons who sometimes betray evidences of nicotine poisoning, and who furnish the material for the argument that tobacco is an evil. To them, unquestionably, it is, for they are ignorant of its proper use.

It has been charged against tobacco that it produces decay of the teeth. This popular idea, however, does not agree with authorities on the subject, who attribute, on the other hand, remarkable preservative powers to tobacco. Women who practice the filthy habit of "rubbing" usually have beautiful teeth, which are not liable to early decay. Toothache is more common among women than men, which is likely due to the fact that tobacco, with the exception of "rubbing," and occasional smoking among the lower classes, is not used by women. Indeed, one who chews tobacco rarely has toothache. Teeth have been kept in nicotine for months perfectly sound. Tobacco has been assigned as the cause in certain disorders of vision.

In London *Lancet*, 1863, p. 654, three cases of amaurosis were cited by Wordsworth as being due to tobacco excess. In a discussion afterwards as to the relation of the tobacco habit to amaurosis, Ernest Hart asserted these cases to be inconclusive, and denied that tobacco produces optic atrophy. In *Lancet*, 1863, p. 748, he says: "Optic atrophy is a diseased condition which is found in children, women, and abstinent persons, as well as in those who smoke tobacco. It is not found in thousands of hard smokers, and some seriously affected with it never tasted tobacco. We know it to be the result commonly of tumors, effusions, and alterations in brain structure certainly unconnected with smoking. It is obvious that the onus of proof lies with those who assert this singular pathological connection."

The best authorities seem to regard the disorder known as tobacco amaurosis as purely functional, transient, and very amenable to treatment.

Part II.

As the use of tobacco may be associated with almost any known malady, it is not surprising that it has been assigned as the cause in so many and various disorders. Coincidences are often mistaken for causes, and no doubt phenomena attributed to tobacco have been confounded with those of co-operative causes. "If it is explained on the ground of excessive smoking that students are near-sighted, it is difficult to account for the fact that sailors smoke more and are far-sighted, the result in each instance being due to the manner in which the eyes are used."

It is held by some that tobacco excess may produce forms of insanity, but it is very difficult to determine from statistics that this is true. Instances of certain mental disorders have again and again been cited as being in relation with the habit. But in many of these hospital cases the responsibility was attached to tobacco, apparently for the purposes of a tabular statement, and with a disregard to other elements present.

Of 186 cases noticed in a report of the Bloomingdale Hospital for the Insane, one was thought to be due to the "*too abundant use of opium and tobacco.*" In the report of the State Lunatic Asylum at Worcester, Mass., for 1833, in 164 cases of insanity one was attributed to tobacco. In 1837 and 1838, out of 855 observations, one case was reported from tobacco excess, and in the report for 1835 one case due to "*intemperance and snuff.*" In the yearly reports of the Pennsylvania Hospital for the Insane, in 1858, of a summary of 3,058 cases, 6 were believed to be caused by tobacco; "*but in the next ten years though the number of*

observations had been doubled, but six cases were given in the report for 1868 that were due to its use." In hospital cases where tobacco excess may only be one of many other vices, such as alcoholism, excessive living, etc., it must certainly be a difficult matter to estimate the share of the tobacco in causing the disturbance of mind. The fact alone of the great preponderance of lunatics of the female sex has been referred to as disproving the idea that tobacco either causes or predisposes to mental disease.

It is remarkable the craving that the insane have for tobacco. "It is the most universally agreeable substance to the insane, whether to snuff, smoke or chew. There are some who, in any of these ways, it renders more tranquil, and in lunatic establishments it is often found a ready means to gain good will and confidence."

In order to learn whether workmen in tobacco factories commonly suffer from nicotine poisoning, the writer has interviewed a large number of manufacturers upon this point, and though perhaps prejudiced and not always competent observers, yet their statements possess some importance. As far as they knew, their workmen were as healthy as men in other employments. It was generally their life-work, and was followed to old age without apparent bad results. An interesting case was pointed out of an old man whom the cannibal would certainly have refused, who had worked in the dust of snuff for thirty-five years, and had during this time been an excessive chewer, swallowing the *juice*. This case illustrated the unusual tolerance that in some individuals may be established. The man had never noticed any ill-effects from the habit, having as a rule enjoyed good health.

The following is taken from the London *Lancet*, vol. ii., p. 269: "In 1845 the Paris Academy of Medicine appointed a committee to examine the reports for the year 1842 of physicians to the tobacco factories of France. A careful analysis of reports addressed to the French government led to these conclusions:

"Workmen who enter suffer for a few days from headache, and perhaps some nausea, which, with a few exceptions, soon disappear. The health of the employees is generally good, even better than that of others in the same community, this being due likely to their higher wages and more comfortable living. No special malady is found among them. They live long, usually working until stopped by age."

More thorough investigations later did not materially change these conclusions.

Scabies and skin diseases generally are found to be very rare among workers in tobacco. There was a discussion at one time in which it was differently held that the use of tobacco checks to some extent the deposit of tubercle, and on the other hand that it predisposes to it. This question was inquired into by a committee appointed by the French Government. After diligent examination of a vast number of cases the conclusion was reached that the use of tobacco actually retards in a measure the tubercular process. The fact has been noted that in India pulmonary consumption is not common, while the natives smoke excessively and at an early age, being subject also to severe vicissitudes of climate.

It has been alleged that cancerous ulceration of the lip and tongue have been produced by smoking. This idea, however, is discountenanced by the leading authorities.

"The causes of cancer of the lip are unknown. * * * * Writers and teachers * * * * have referred its origin to the habit of smoking a short clay pipe. * *

"Such an opinion would be entitled to respect if it were not for the fact that subjects of cancer of the lip often do not use tobacco in any form whatever." (Gross' Surgery, vol. ii., p. 539.)

It is interesting to notice the remarkable statements that have been set forth from time to time by zealous opponents of tobacco. In a treatise on tobacco, published in England many years ago, Dr. Budget stated that "in America it was no uncommon circumstance to hear of inquests on the bodies of smokers, especially youths, the ordinary verdict being, 'died from extreme tobacco smoking.' Such a finding by a coroner's jury at present would certainly be regarded as unique. It has even been asserted that a syphilitic subject might communicate the disease to other persons by the smoke of his cigar. It is obvious that infection in this way is utterly impossible. All of the following conditions and maladies, with innumerable others, have been attributed to the use of tobacco: goitre, scirrhus of pancreas, and pylorus, cancer of lip and tongue, atrophy of salivary glands, dyspepsia, cardialgia, organic disease of heart, defective nutrition, anæmia, *depravity of the secretions*, acne, *gum boils*, ulceration of larynx, predisposition to phthisis, *anorexia*, diarrhœa, languor, headache, alcohol habit, *perforation in typhoid fever*, jaundice, swelling of feet, hoarseness, disturbed sleep, sense of suffocation, night-mare, irritable temper, enervation, hysteria, indecision, vertigo, melancholy, loss of memory, apoplexy, delirium tremens, paralysis, mania,

softening of the brain, *early senility*, imbecility, epilepsy, *cowardice*, deafness, amaurosis, spermatorrhœa, and emasculation."

After one of the protracted discussions in England on the tobacco question, Dr. Richardson published, in 1862, a series of papers, which were summarized by the *Lancet*, 1863, p. 676, as follows:

1. The more common effects are due to carbonic acid and ammonia.

2. The effects are but transitory.

3. All of the resulting evils are functional.

4. Produces disturbance in blood, stomach, heart, organs of sense, in brain, sympathetic system, and mucous membrane of mouth, and bronchi.

5. As a cause of insanity, epilepsy, chorea, apoplexy, organic disease of heart, cancer and consumption, there is not sufficient evidence.

6. It is deleterious to the young.

7. In the main it is a luxury that any nation is better without, and to the mind conveys the idea of physical detriment.

8. As a luxury tending to this condition, it is one of the least harmful. Is innocuous compared with alcohol, is not more harmful than tea, less so than sugar, and is antidotal to gluttony.

9. It is a remedy in certain cases for evils that lie deeper than its own.

Though there have been bad results well ascertained traceable to the abuse of tobacco, yet the facts and weight of authority seem to show that its harmful effects, as a whole, have been greatly exaggerated, and that it may be used by the majority of adults, if used moderately, or rather intelligently, without being productive of the least injury, but on the other hand, often of decided benefit.

Sir Benjamin Brodie, while opposed to the use of tobacco, gave the following very candid opinion: "A disposition to use it, so universal, must almost be regarded as an instinct, and there is sufficient reason to believe that within certain limits the indulgence is useful. But we must not," he adds, "abuse our instincts."

"The desire for a stimulant of this kind is so general that it would seem there is actually a need for it."

Dr. Pareira states, in his Materia Medica, that he is "unacquainted with any well determined ill effects from the practice of smoking," and Christison speaks of it as "a luxury used all the world over without any bad effects having been clearly traced to it." In a letter of Dr. Parkes, author of "Parkes' Manual of Practical Hygiene," in *Lancet*, page 384, 1880, he confesses that he has searched in vain for any satisfactory evidence of the harmful effects of tobacco, and that it was for this reason that its consideration was not given place in the work mentioned.

The fact has been pointed out that men are on the whole, as healthy as women, while nine out of ten of the male population of the world use tobacco, and women as a rule abstain. In the learned professions, about one-half of the ministers are addicted to it in some form, likely three-fourths of all physicians, and nine-tenths of members of the legal fraternity.

In looking calmly at the tobacco question, there is one feature calculated to excite alarm, and that is the habit of chewing and smoking so widely practiced among boys. This, to young growing boys, is unqualifiedly hurtful. They voluntarily endure the first disagreeable effects of the tobacco to acquire what they consider an accomplishment, the habit is finally confirmed, and with an entire ignorance of its powers, added to a tendency to immoderation, the growth and development is often seriously interfered with, and the worst results follow. They smoke and chew generally the worst tobacco, and to a degree which would positively be harmful with the majority of adults.

This matter should be corrected by proper action of our legislators, with whom the responsibility rests.

Smoking, when done at proper times, facilitates digestion. The sense of relief obtained by a cigar, after a heavy meal, is well-known to smokers. Dyspepsia sometimes follows the discontinuance of tobacco, and is removed when the habit is resumed.

While the abuse of tobacco weakens the system and leads to emaciation, used intelligently it exerts a favorable influence upon nutrition.

Hammond, by observation upon himself, found a gain in weight with the use of tobacco. Fiske attributed an increase of twenty-four pounds in three months to tobacco. "Tobacco, when the food is sufficient to preserve the weight, increases it; when insufficient, and the body is losing, tobacco restrains the loss." (Hammond.)

Bœrhaave, of Holland, over two hundred years ago referred to tobacco as being *antidotal to hunger*. It seems that the power to undergo severe exertion and fatigue, either mental or physical, is aided by tobacco.

"Soldiers of all nations use it. It was a standing injunction of Napoleon that his troops should have tobacco, and it was of great advantage in the retreat from Moscow." (Fiske.) During our

late war the soldier would be patient under very severe privations, if he but had a good supply of tobacco to smoke or chew, and when on picket duty would risk his life to strike a match for his pipe.

Situations of loneliness are always rendered more tolerable by tobacco, and it is the constant companion of those who lead lives of solitude, such as that of the herdsman or ranchmen. A feeling of unrest or discontent, made up of ill-defined longings, of imaginary disappointments, and unpleasant anticipations, commonly known as *ennui*, is responsible for much unhappiness. This unfortunate condition of mind is removed by the soothing influence of a cigar, and the moroseness and gloom are quickly dispelled. As much of every day is filled up with care, our degree of comfort in this life will depend largely upon our ability to bear it uncomplainingly. That tobacco assists us to do this, that it enables us to look upon life more complacently, must be the conclusion of every one who has experienced its influence. That it enables us to toil with less fatigue, is equally true. The readiest writers generally use tobacco, and cannot accomplish the same amount of work in the same time without it, and those connected with newspaper and other literary work who have often to write against time find it of inestimable value.

Tobacco formerly enjoyed a deserved reputation as a medicinal agent, and was extensively used in scabies and other cutaneous disorders. It has been largely supplanted, however, in modern practice, by other remedies. The use of tobacco during a mercurial course decreases the risk of salivation, and cases of ptyalism have been reported cured by its employment. Before the discovery of chloroform, tobacco served a useful purpose in the hands of the surgeon in cases of strangulated hernia for obtaining complete relaxation. Tobacco constitutes a most valuable addition to the ordinary poultice in local painful affections. In two cases of carcinoma of the breast, by incorporating it in a local application, a marked advantage was noticed by the writer in the relief of pain. As an ingredient in asthmatics, cigarettes with belladonna, stramonium, etc., it is entitled to share in the remedial effect.

The limited medicinal range of tobacco is unimportant in comparison with its social and psychical influences. Among its many beneficent powers, it appears to allay worry and lighten toil. It is an aid to mental work, and a help to reflection and complacency. It promotes sociability, and in the words of one of its champions, "makes a man act more like a Samaritan."

While it is neither liked nor needed by animals, who loathe it, it seems to be required and craved by man, to whom its characteristic properties appear peculiarly grateful and often useful. It has repeatedly and unjustly been called a curse, but those who have written most of its baneful effects, as a rule have never used it.

Indeed, this comforting substance is so far removed from the idea of a curse, that it should not be forgotten when we recount the many blessings of mankind.

RECENT MEDICO-LEGAL MATTERS.

BY HENRY K. A. RILEY, ESQ.,
Of New York City.

A branch of law of great interest to physicians and surgeons is that arising from the employment of the profession by servants of corporations, in cases of accident without the knowledge or authority of the higher officers. It cannot be said that there is any invariable rule on the subject, either fixing the liability for compensation or relieving the corporation from it. Some of the States hold that the act of the employee binds the corporation in cases of emergency, and some deny that such is the rule.

The Supreme Court of Indiana has just decided a case in point by holding the corporation liable, and a statement of the facts upon which the judgment was rendered will be of interest:

Frankfort is a way station on the line of the Terre Haute and Logansport railroad, distant many miles from the principal offices of the company, and from the residences of its chief officers. At this station, at one o'clock in the morning of July 2, 1881, Thomas Coon, a brakeman in the service of the company, had his foot crushed between the wheels of a car of the train on which he was employed as a brakeman, and a rail of the track. The injury was such as demanded immediate surgical attention. The conductor of the train requested Dr. McMurray, a surgeon residing at Frankfort to render the injured man professional aid, and informed the surgeon that the company would pay him for his services. At the time the accident happened, and at the time the surgeon was employed, there was no officer superior to the conductor at the town of Frankfort. There was at the station a resident agent, who had full knowledge of the injury to Coon, and of Dr. McMurray's employment.

This agent was in telegraphic communication with the principal officers of the company, but did not communicate with them. Upon these circumstances the court which tried the case held the

railroad company liable, and a verdict of $100 was rendered in his favor. The railroad company appealed from this decision, and the Supreme Court of Indiana has just decided that the judgment was right and must be affirmed. The court considers at length the claim of the company, that a conductor has no authority conferred upon him to employ surgeons and make the company pay for their services, when rendered without the knowledge of the officers, and that such action was totally outside the scope of his ordinary work as a conductor. After careful examination, it decides that in the special instance the claim does not apply. The rule that an agent can bind his principal only in cases within the ordinary scope of his employment, is held to be a sound rule of law in most cases, but that an extreme emergency will give the conductor, who was the highest representative of the company at the place of the accident, the same powers to act that are ordinarily only enjoyed by the superior officials. Upon this point the judges say: "Can a man be permitted to die while waiting for the company to determine when and how it shall do what humanity and strict justice require? Must there not be some representative of the company present in cases of dire necessity to act for it? The position of counsel will meet ordinary cases, but it falls short of meeting cases where there is no time for deliberation, and where humanity and justice demand instant action. From whatever point of view we look at the subject, we shall find that the highest principles of justice demand that a subordinate agent may, in the company's behalf, call surgical aid when the emergencies of the occasion demand it, and when he is the sole agent of the company in whose power it is to summon assistance to the injured and suffering servant. Humanity and justice are for the most part inseparable, for all law is for the ultimate benefit of man."

A bill has been introduced in the Ohio Legislature, under fair prospects of passing, which provides that children under twelve years of age shall not be employed in mines or manufacturing establishments. The bill also prohibits the employment of children in the public institutions, such as houses of refuge and work-houses, more than six hours a day. Firms and business corporations are also required to furnish the females in their employment with suitable seats when not necessarily engaged in the active duties of their business.

A curious case of the vagaries of expert evidence was developed in a murder trial a short time since in Oneida county, New York. A murderer named McCarg was on trial in Utica, charged with shooting a woman. She was found dead on a bed in her father's house, while in another room, twenty feet distant, a revolver was found. An examination of the body showed that the bullet had passed through the right and left ventricles and aorta of the heart, and the testimony of several physicians was taken to the effect that death must have been instantaneous, thus defeating, necessarily, the defence of suicide. The criminal was convicted; but not altogether on this evidence against the possibility of suicide.

While the trial was in progress, another tragedy transpired only a few miles from Utica, and a man was shot twice, once through the right lung, and once through the left lung, the left auricle, and the right ventricle of the heart. This injury was very similar to that of McCarg's victim, but it was shown that the injured man walked, actual measurement, eighty-two feet before he fell, a much longer distance than was testified on the McCarg trial to have been out of the question.

It is not unlikely that McCarg will get a new trial, although the proof against him seemed very strong on other grounds.

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. Seelye, A. M., M. D.

Transverse Myelitis.

This, gentlemen, is the case of myelitis, the diagnosis of which I was in some doubt about when I first showed him to you (see page 298), thinking that it might prove to be a case of polio-myelitis anterior, and not a case of transverse myelitis, involving the whole thickness of the cord. But the progress of the case since then obliges us to give up that idea. For the sensory disturbances are just as well marked as when he came in, and there is anæsthesia of all the parts below the umbilicus still, and the paralysis of the sphincter of the rectum continues, and there was, until yesterday, retention of the urine from paralysis of the bladder, and he has had some other irregular symptoms since. Observe how very red his face is, and how very congested the upper part of his body and his upper extremities have become, while he is bathed in a cold, clammy sweat. This is due to a vaso-motor paresis in the upper portion of his body, which, I think, is the result of reflex nervous disturbances. There has been no extension upwards of the lesion since you saw him. The sphincter of the bladder has been overcome by pressure from having been left until it became over-distended with urine. The urine has been regularly drawn twice a day, but yesterday it was neglected for once, and as a result,

he is now suffering from incontinence. The trophic disturbances are not yet very marked in the skin. Some blisters were applied to his back before he came in, and it was feared that this might result in a loss of tissue. But the skin is now healing over them. So the trophic disturbances are not so great as they ordinarily are in acute myelitis. And the fact that there are no bed-sores here as yet is a favorable circumstance, for it shows that there is not as yet a deductive inflammation extending throughout the whole mass of the cord. The trophic disturbances in lesions of the spinal cord are as a rule especially to be noticed in the skin, mucous membranes, and joints. These patients usually suffer from a vesical catarrh, which is due to an irritation of the lining mucous membrane, provoked by an imperfect emptying of the bladder, which allows a portion of the urine to remain and to undergo alkaline fermentation and decomposition. And, again, in diseases of the spinal cord, as in Pott's disease, and in tabes dorsalis, or locomotor ataxia, it is usual to have suppurative lesions and disorganizations of the joints below the spinal lesion.

There is a point in the management of these cases which is important. You saw here that so long as the water was drawn twice a day, the bladder retained its water perfectly; but from an unintentional neglect to perform this duty, there is now a constant dribbling of the urine. It is therefore important to frequently empty the bladder; and if you fail to do so the patient will probably not remind you of the fact, because he suffers no uneasiness from the over-distension. It is important also to do what you can to protect him from those trophic disturbances which are apt to occur upon the skin, by relieving the prominent parts from pressure, by putting him upon a bed so made as to equalize the pressure over the whole surface; and the best form is the water bed, which is so made that it does not press upon any particular point of the body more than another. Absolute cleanliness is of the greatest importance, and nursing is more than half the battle. You should see that the skin is protected from the irritation of the discharges of every kind. And you should arrange him so that he can have his movements without changing the position of his body. And there are beds which are made for this very purpose. The treatment employed here has been the administration of ergot, which, as you know, is looked upon as a remedy of specific power in controlling the circulation in the nerve centres.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(*Continued from page* 464.)

The Poultice.—I now come to a subject which has interested me a great deal, and about which I have some convictions, which may be exaggerated, but which are founded upon careful observations made during about five years. One of these convictions is, that the use of poultices is very much overdone. Poultices are of service when it is desired to increase vascular activity in low grades of inflammation, with depressed circulation, and when it is desired to promote or increase pus-formation. But I think they do their work in a short time, and that their prolonged use may bring about a condition in which nature seems unable to get beyond the production of a very feeble and unhealthy sort of tissue. Kept hot and frequently changed, so as to get away the filthy discharges, for a few days they are invaluable; but allowed to cool, left on long at a time, and continued for many days, they do great harm. When a slough is to come away, as after cauterization, or the opening of a felon or carbuncle, nothing which I know of equals a poultice for comfort and effectiveness. But, even in these cases, one should, I think, give them up as soon as the slough is away, and treat the wound as a simple ulcer.

There are no cases which have so much enforced this conviction upon me as those of deep inflammations of the hand and foot, felons, and palmar and plantar abscesses. I have myself seen, and so have those who have followed my service in the surgical out-patient departments of the University and Presbyterian Hospitals, many cases which have illustrated the advantages and disadvantages of the use of poultices in the most impressive manner. Only this autumn I have seen three cases where hands affected with deep palmar inflammation have been almost sacrificed to the persistent use of the poultice—all three of them turning immediately back to recovery as soon as the poultices were laid aside and nature given a chance to do what she could without them. I may say something similar about felons. I have seen felons, well opened and then too long poulticed, kept unhealed for a long time, the tissues of the finger becoming boggy and of very low vitality, which recovered promptly when nature was let alone for a while, and a little attention paid to the general system.

The result of these observations has been, that I make but little and brief use of poultices in these troubles. A felon I open deeply whenever I think there is pus actually present—never before, for they can often be aborted—then I encourage bleeding by a good soak in very hot water; then I poultice for *one day only*, soaking frequently in water as hot as can be borne. After this I dress with pure laudanum, or lead-water and laudanum, or a simple ointment, unless there is obviously a slough forming; and I usually can dismiss my patient in a few days. When a felon has gone on to destruction of the vitality of bone or tendon, poultices may be used longer; but I believe one should be always on the lookout for the time when they can be thrown aside.

The best treatment of palmar and plantar abscesses, or rather of deep inflammation of the hand and foot, cannot be stated in a few words; but alas! for the patient whose doctor is too timid to use the knife, and too assured of the saving grace of the poultice. Too little of the one and too much of the other, is a sad combination.

Strapping with Adhesive Plaster for ulcers is a troublesome, though very valuable, surgical procedure. It is common in this country to put straps on only part way round a limb, and to fear the strangulation which may follow going all the way round. But this fear is groundless. In

England, straps are applied by placing the middle of one at the part opposite the ulcer, carrying the two ends forward, crossing them over the ulcer and fastening them down at the opposite side from which they start; and I have practiced this methed myself with perfect safety and success. So much as this, is, however, rarely necessary. A good plan is to apply narrow straps *at intervals* over an ulcer and to place on top of this interrupted adhesive-plaster support, some stimulating ointment on lint—and over all, cotton batting, or oakum, and a bandage. But two things, sometimes neglected, are essential to the best success of strapping: one is, that the straps be not too wide—say about an inch or less in width—another is, that they should draw the sides of the ulcer together a little, and not simply be plastered against it.

The pressure which can be secured with adhesive straps I have also found useful in a number of inflammatory conditions. I need not mention the strapping of inflamed breasts. But the application of narrow straps will also furnish great relief in the case of boils and carbuncles, and I have had a case of paronychia which resisted assiduous treatment for a long while, but in which immediate relief and rapid recovery followed the application of a circular dressing of adhesive plaster round the end of the finger.

Collodion.—This is another agent which may do good service in minor surgery. Many wounds can be easily and effectively coaptated by drawing the edges together, laying over them a strip of tarletan or other bandage, and saturating it with collodion. It should be remembered, however, if one is dealing with children, that collodion applied to a raw surface is very painful for a while. In applying dressings to the face, we may often dispense entirely with a bandage by using collodion in this way, or by placing against a small wound, or ulcer, or fistuloüs opening, a little absorbent cotton and gluing its edges down with collodion. If proper, the whole of the cotton may be painted over with the collodion, and a neat, soft, absorbent, but impermeable dressing will be made.

Strips of thin material, applied to the surface, and painted with collodion, make a good and comforting pressure upon boils and small carbuncles. Collodion painted directly on the skin is also often very efficient for this purpose. I have found, finally, that sties on the eyelids can often be aborted by touching them with the point of a small camel's hair brush, dipped in collodion. Of course, care must be exercised, when doing this, not to put any of the collodion in the eye.

5. BANDAGING.

A mistake is sometimes made in bandaging too tight, and I have once seen a case where gangrene was caused in this way. But, fortunately, the time-honored wood-cut, which serves in many works on surgery as a warning against this error, furnishes the best information most of us get as to what such a thing is. There is another error, much commoner, and that is bandaging too heavily. I have often seen patients who came with a member firmly bound to a splint, with the laudable object of preventing injurious mobility, but loaded down with successive layers of bandage, until the heat had set up an active inflammation, with the customary accompaniments of pain and swelling, which subsided when the lightest possible splint was used, and the thinnest possible bandage.

Sometimes it is desired to apply water after a bandage has been put on. In such cases, of course, the bandage should be thin and open-meshed, and put on as loosely as is consistent with safety. For this purpose, the cheap unbleached muslins are far better than the fine ones furnished by the instrument-makers. Water can also be insinuated under a bandage, if the member has first been wrapped in a layer of absorbent cotton or lint.

I think it is a mistake to bandage too far from the seat of an injury. I am sure we sometimes, from the mere force of habit, send a patient away with an imposing surgical dressing, who, if he had not had access to a surgeon, would have done well with a rag tied round his finger or hand. And, in regard to fingers, there is rarely any need to involve the hand and wrist in a dressing intended for an injury to a finger alone. In such a case, it is sometimes desirable to go a little way from the injury: but usually it is sufficient to pass one joint above and below, and to treat separate fingers separately. Sometimes two or more may be bound together for mutual support; but often it will pay, in comfort to the patient, to dress each by itself, and to release at once any one which is well enough to be let alone, and not to keep it waiting upon others.

The placing of cotton under a bandage has other uses than to facilitate the application of water. One of the most important is, to exert uniform pressure, to prevent swelling, to promote absorption of effusions. One who has not tried it systematically would hardly believe what this sort of compression will accomplish; and I think it might be set down, as a rule, that all contusions of joints, and most inflammatory swellings, should be subjected to the equable compression and gentle warmth of dry cotton and a pretty firm bandage. Here, again, I have found it advantageous to follow the suggestions of Mr. Sampson Gamgee, and have come to prefer this method to the traditional lead-water and laudanum.

Before leaving the subject of bandaging, I would like to call your attention to a method of applying a bandage to a limb, recommended by Mr. Sampson Gamgee, which does away with the need for making "reverses," and which makes a much better bandgae in many ways than the ordinary one. Two of its advantages are, that it is easier to apply and much less likely to slip. The method of its application is simply to begin at the distal extremity with a few circular turns, and then go up the limb without reverses, and letting the bandage go where it will, always resting smoothly against the surface. If allowed to go where it will, it passes spirally up to the next joint, turns naturally pretty straight round below this, and descends in another spiral, crossing the first with a sort of lattice-work until it reaches the bottom. Here it will go round again and incline upward to repeat the former course. The least guidance imaginable will cause the bandage to cover the spaces left open by the previous spirals, and the limb is covered in smoothly and evenly, and as

thickly and firmly as the operator's will and the length of the bandage permit.

6. SPLINTS.

I have already once or twice incidentally indicated what I think to be an important point in regard to splints, and worthy of more particular mention—I mean their weight. A splint should be no heavier or thicker than is absolutely necessary. The lighter the better, is, I think, a good principle. Let light pasteboard be used when possible, or the very thinnest wood. Nor need their weight and thickness be increased by padding. This is especially true in regard to splints for the arm, where wooden splints are oftenest used. I find it sufficient to wrap a thin wooden splint in waxed paper, to make it perfectly smooth and keep it clean, and to interpose between it and the arm a double strip of lint. These I fasten in place, on the arm, with three or four strips of adhesive plaster, avoiding the seat of fracture or other injury, and covering all in with a light bandage. Then the parts can be examined at any time by simply removing the bandage, without taking off the splint or disturbing the seat of the injury. Of course, little wads of cotton may be placed where the member does not touch the splint, and bony prominences must not be pressed too hard against it.

And here I wish to urge upon your attention what I think the best splint for the forearm and hand. Since adopting it, I have found that, like many other supposed discoveries, it is by no means new. But it is so little used that I think it can hardly be much better known to many others than it was several years ago to me; I mean *the posterior, straight splint*. Any one who studies a forearm will see that when the hand and finger are extended, the dorsal surface is almost an accurate plane, while the ventral surface is very uneven. Arguing from this, I thought it well to follow the apparent hint of nature, and to use this surface for my splints. I soon found that I could treat injuries of the forearm and hand, requiring a splint, very successfully with a thin, straight splint, applied in the way just described. And I may say that I have found it much easier to prevent stiffness of the wrist-joint—the bane of fractures of the lower end of the radius—by this, than by the time-honored Bond's splint, which I have not used for several years. With the Bond's splint, I have, in former years, had much trouble from stiffness, and seen much trouble when it has been used by others, because, while the position of the hand seems to be favorable to motion, I have not found it really so, but that the patient's fingers are either bound to it too firmly, or they themselves clasp the block so constantly and so rigidly, in spite of all injunctions to the contrary, as to tend to stiffening of all the joints involved. I need scarcely add to what I have already said any further arguments as to the advantage of the posterior splint in the way of lightness and the facility it affords when used in the way I suggest, for examining the seat of injury without disturbing it. The Bond's splint, on the other hand, as frequently applied, is heavy, hot, more or less painful, and troublesome to remove for subsequent examination.

7. THE SLING.

I cannot close these remarks without saying—what my observations lead me to believe is not uncalled for—a word about slings. It ought to be an invariable custom—with those rare exceptions in which for the purpose of drainage it must be reversed—to have a sling so regulated that it will *support the hand at a higher level than the elbow*. A neglect of this very simple, and, I believe, very important rule, is sometimes followed by great pain and swelling of the hand, and a degree of discomfort which would be incredible to one who had not investigated the matter. Further, a sling should be broad enough to support more than a narrow strip of the arm, or one will be apt to find its position marked by a furrow dividing two swollen parts of the arm, in a manner which is not neat, and which suggests possible injury or interference with the most rapid recovery. Another point about slings concerns the length of time they should be used. Here, again, I think our routine is sometimes too rigid. It cannot be stated exactly how long a sling may be useful; but I have often found it of advantage to let an arm be taken out and allowed to swing at the side, at least occasionally, long before the splint could be dispensed with. If any of you who have not done so already, will try this plan with your patients, I think they will thank you for it, and that neither they nor you will regret it.

There are other matters which have occurred to me in my hospital and private experience, of which I might speak, if I had time and you had patience enough. But I must close with one suggestion, which I think of too great importance to be wholly omitted; this is: never to neglect, in treating a surgical injury, the constitutional condition of a patient. I have rarely seen a surgical case which was not the better for some medical treatment. A look at the tongue, and a question or two, will usually convince us that a patient will be helped by having the bowels cleaned out with a brisk saline purge. In almost all inflammatory conditions, such as carbuncles, abscesses, felons, deep palmar or plantar inflammations, it is my invariable rule to order a saline purge and follow it with full dose of the tincture of the chloride of iron, or Huxham's tincture. Quinine I do not use, because, for some reason which I cannot give, the preparation of bark seems to do more good.

And with this I close my remarks. I trust they may not be thought too trivial to have occupied your attention, or too dogmatic, in view of what may be very different opinions on your part. They are, as I have said, notions which I have acquired from my own experience, and which, if correct, may help others, and if incorrect, I shall be glad to have made right.

DISCUSSION ON SUGGESTIONS FOR SURGERY.

Reported by G. Betton Massey, M. D.

Dr. John H. Packard, in opening the discussion said: "The ground embraced in Dr. Dulles' communication is so very extensive, that it hardly admits of full discussion; but indeed, what I shall have to say is not so much in the way of unfavorable criticism as of endorsement and addition.

"First, as to salivary fistula: while admitting the ingenuity of the proposed bed, I think it would in many cases be rendered doubtful by the difficulty of procuring the discharge unmixed with saliva.

"In wounds of the face, one important object is the avoidance of unsightly scars; and hence the removal of scabs or crusts of blood is often imperatively called for, in order that the surgeon may assure himself of the proper coaptation of the edges.

"I endorse entirely what Dr. Dulles says of the propriety of cleansing the surfaces of wounds with water. A very handy way of doing this, especially in private practice, is by means of a syringe, which need not be very large. An article known as 'Hall's Health Syringe,' may be used to advantage; the liquid to be used being placed in a bottle, and not coming in contact with the bulb or valve, so that medicated washes may be employed without damage to the instrument itself.

"As to hemorrhage, I would qualify what Dr. Dulles has said. We are not, in my opinion, as a general rule, justified in closing a wound until the bleeding has been completely checked; hot water will generally effect this, or if there is a small vessel spouting, a serre-fine may be applied for a short time. Whenever prompt healing is to be aimed at, clots should be carefully removed before bringing the edges together. In saying that it is well to allow some blood to flow from a wound, and to empty the vessels in its neighborhood, Dr. Dulles is in accord with Paré, who, three hundred years ago, recommended such a course after the performance of amputation.

"I concur with Dr. Dulles in his condemnation of the careless and slovenly use of styptics, and especially of the tincture of chloride of iron. During the late war, in the military hospitals, I many times saw wounds stuffed with this article, forming a mass of mud which had to be dug out, the bleeding continuing beneath it. Some of the gentlemen here to-night, I know, shared this experience.

"One of the best and cleanest styptics, known as that recommended by the elder Pancoast, consists of potassium carbonate, soap, and alcohol. It has the disadvantage of causing very sharp pain for a few moments after it is applied, but is very effectual. In cases of alveolar hemorrhage, a method which I have found useful is to make a small cone of cork, cover it with "styptic cotton," and press it into the cavity. Such a plan might answer also in cases of pus oozing from vascular bone after the removal of sequestra; but hot water generally suffices here.

"Hemorrhage from either palmar arch ought, in my opinion, to be dealt with by cutting down upon the wounded vessels, and tying it on either side of the orifice, or securing both ends if it is divided. I have seen so much trouble from less decided practice, resulting at last almost always in a resort to the procedure just named, that I believe it to be the best surgery to adopt the latter in the first place.

"With regard to dressings, I think lead-water and laudanum very valuable, but it needs to be sufficiently diluted, so that absorption may take place, otherwise it simply shrivels and corrugates the skin. A very large list of ointments, vaselines, with or without morphia, resin cerate, compound elemi ointment, etc., might be added to the small list given by Dr. Dulles.

"In cases of painful ulcers, or raw surfaces in healing wounds which have sometimes exquisitively sensitive spots, the covering of such spots with a little piece of 'skin-plaster,' sometimes called 'gold-beaters' skin,' will often afford efficient protection, and allay the pain given in dressing.

"A form of poultice which has given me much satisfaction is the 'dry poultice,' consisting of an even sheet of raw cotton, applied warm to the part, and then covered with oiled silk, oiled calico, or waxed paper.

"Collodion is rendered much more efficient by the addition of gtt. v. of castor oil to each f. ℥j. This gives it a slightly unctuous or greasy feel, and makes it both more flexible and more adhesive.

"Bandages are perhaps often applied too tightly, with the idea that they will retain their hold better; yet we very rarely see serious damage done in this way, and I think the more common error is to bandage so loosely as to fail of giving the parts proper support.

"It seems to me that the practice of confining the rest of the hand, or a large portion of it, in cases of injury to a finger, is eminently judicious; the patient is very apt to use the hand so freely, if this is not done, as to interfere with the well-being of the injured member.

"With regard to the padding of splints, I think cotton is very often improperly used. It ought to be in very even sheets, of carefully adapted thickness, and should be changed at once when it becomes sodden and lumpy with perspiration. I prefer it decidedly to the coarse and thick oakum sometimes employed. I have often used a double fold of what is known as Canton flannel, for the lining of splints, with satisfaction both to myself and to the patient.

"I would like to ask Dr. Dulles if, in fracture of the middle of forearm, he would apply a dorsal splint?"

Dr. Dulles: "I would in some cases."

Dr. Packard: "I think that in the application of a single splint to a fracture of one or both bones of the forearm near the middle, there would be danger of loss of the interosseous space by pressure of the bandage, as well as of irregular union of the fragments by the rotary movement allowed to the part. The latter can be prevented, however, by the simple device of extending the splint up along the arm, with an angle at the elbow.

"The subject of the so-called Barton's fracture (in reality Colles') is too large for me to take up now; but I must say that I cannot see how such injuries can be efficiently treated with the dorsal splint. Good results have been claimed to have been obtained with every one of the various forms of splint proposed for the treatment of these fractures; but the fact is that the mere restoration of the use of the arm has been regarded as a good result. I have seen many cases which had been treated by the most careful surgeons with Bond's splint, for example, and in every one there was a marked deformity, and a certain loss of power of

flexion, remaining at the end of many years; in some there was also notable weakness, especially in the action of pushing. I think we ought only to be satisfied with the most perfect attainable results; with the restoration of the broken limb to its exactly normal shape, its full power, and its free motion, as nearly as it is possible for us to effect it.

Dr. S. W. Gross: "The ulcers, alluded to by Dr. Packard, characterized by a great deal of pain, may be found in other than syphilitic subjects, although they are especially frequent in such cases. The pain is caused by the exposure of the nerves in the granulating mass. By finding the sensitive points, the pain may be relieved by dividing the nerve trunks with a tenotome, applying nitric acid and then a watery solution of morphia and chloral.

"I don't think Dr. Dulles wants blood to remain in a wound; it keeps the surfaces apart, and furnishes material for decomposition and its consequences. I quite agree that no haste should be made in taking up small arteries, but am not prepared to endorse the statement that all hemorrhages of the palmar arch can be treated by pressure alone. I cannot but think he would tie the principal arteries. In treating such a wound, it becomes a duty to arrest hemorrhage by ligature, acupressure, or other precaution, with subsequent application of the roller-bandage.

"To prevent gangrene, the roller bandage should be applied carefully and removed after the first eighteen hours. The compress then readily remaining in place from adhesion, the bandage may be reapplied lightly. If hemorrhage becomes imminent, an excellent tourniquet is the flexion forcibly of the bandaged elbow.

"I enter a protest against the wholesale denunciation of styptics of the previous speakers. I do not think the surgeon should apply Monsel's solution when ordinary measures will answer, but there are certain wounds in which styptics are absolutely necessary. Thus, in a case of removal of the hypertrophied tissues of the palate, the surface was bleeding severely, the blood coming from the posterior palatine artery, where it was impossible to apply to apply a ligature or the hot iron, a watery dilution of Monsel's solution was applied on cotton, and firmly pressed against the bleeding part with the finger, with immediate results in stoppage of hemorrhage. The importance of black heat as a hæmostatic is too little appreciated."

Dr. Packard: "I desire to say that I did not denounce styptics, but merely their improper use."

Dr. R. J. Levis: "I have been interested in the recommendation of the dorsal splint. If the simple straight splint is to be used at all, it should be placed on the dorsal aspect of the arm, as this side more nearly corresponds to a straight line than the palmar surface. With regard to fractures of the radius at its lower end, none can be treated by an anterior or palmar straight splint, without great deformity occurring, due to forcing upward of the lower fragment and destruction of the natural concavity of the lower surface of the bone. The dorsal surface being less concave and more nearly a plane, is more readily adapted to the straight splint.

"If Bond's splint were turned upside down, it would serve its purpose almost better than as it is usually used."

Dr. John B. Roberts: "The value of the paper just read is shown by the fact that each speaker discusses a different point. There are two or three not yet reached. Very incidental mention of the exploring needle was made. I always carry a hypodermic syringe with glass cylinder, which acts well as a suction syringe, and is preferable to the exploring needle. In following hospital practice one may see poultices frequently misused and giving rise to large, flabby sores, requiring subsequent use of astringents. I am sorry that I have to differ from my friend, Dr. S. W. Gross, as to styptics. These are generally useless, and if not useless, inefficient. When they are used with pressure, as in Dr. Gross's cases, it is usually the pressure that stops the bleeding. The thumb alone would have been sufficient, or the absorbent cotton. Splints are almost always kept on too long. I always use, for fractures of the lower end of the radius, a Levis metal splint, kept in place two weeks; then I apply a strip of plaster around the wrist to give a little support and remind the patient that his wrist has been broken. I believe no possible use can be found for Bond's splint. Nothing has been said, to-night, of moulded splints. A good moulded splint is made of gutta percha soaked in hot water, but the resultant sweating, caused by its allowing no evaporation, is an objection."

Dr. Addinell Hewson: "I had the good fortune to see Dr. Bond apply the Bond splint for the first time. He always insisted that the elbow should be above the shoulder, and the hand in middle pronation-supination. The side-piece was shorter, and a cavity was made for internal condyle. He made the patient grasp splint firmly during the process of reduction of the fracture.

"Another point I may notice is forced flexion at elbow- or knee-joint, for arresting hemorrhage. This will hearly always succeed.

"Finely powdered white sugar, sprinkled over a bleeding surface, is an excellent styptic, without the disadvantages of some. The sugar should be used powdered, not granulated.

"Donna Maria gauze, applied in strips across a wound, and secured at its ends by collodion—a most excellent device of the late Dr. Paul Beck Goddard—gives us the advantage of seeing how well the coaptation of the edges is effected and maintained."

Dr. George E. Stubbs: "I have been very much interested in the paper of the evening, and appreciate the value of the points brought up by the surgeons present. I differ from Dr. Roberts as to the use of exploratory needles. In deep-seated abscesses, the grooved needle is better, because the groove affords an immediate guide to the knife-point, if pus is found.

"In cleansing wounds, the so-called 'household syringe,' on account of the gutta-percha ends keeping free from rust, is excellent.

"In this age of germ discoveries and theories, the water used should be boiled, or at least carbolized; especially if it is derived from the Schuylkill. Where there is inflammation, the lead and laudanum wash is almost always useful. As an ointment, Goulard's cerate is useful. In sluggish ulcers of a specific character, I have found

an ointment of iodoform, acetate of lead, ether and cosmoline, preferable. As to the use of styptics, in the late war I had the same experience in the use of the persulphate of iron and Monsel's salt as has been mentioned, namely, the formation of mud-like masses. I have been troubled with the same collections in arresting epistaxis, and have found that the removal of the mass would bring on a fresh hemorrhage. In such cases, I have found that the inside, the fatty part, of a bacon rind, smeared with tannic acid, or a common, soft lamp-wick, similarly treated, and pushed into proximity to the part affected, arrested the hemorrhage at once, without any after-trouble."

Dr. Davis: "I have seen the straight splint, without padding, used quite considerably in one of our hospitals, and it always flattens out the surface very much, and often causes ulcerations of the projecting bony points, as the knuckles, wrist, and condyles. Cotton has been advised, instead of oakum, as a packing material. Oakum, I think, is better, as it does not pack so quickly, and retains its elasticity longer. Instead of extending the dorsal splint up the arm to prevent its turning, as suggested by Dr. Packard, the end near the elbow may be cut away on its inner side, leaving a projecting arm on its outer side, which passes backward beyond the humerus, thus preventing the splint rotating. In using a straight dorsal splint for fractures of the forearm, I have followed the plan of Roser, of Marburg, who extended the splint beyond the flexed wrist, and filled up the space between the back of the hand and splint with wedge-shaped pads. Bond's splint is often unsatisfactory, and even dangerous, from its tendency to flatten out the ball of the thumb, and twist the thumb backwards. I have seen some marked examples of this."

Dr. Dulles, in closing the discussion, said: "Mr. Gough used to say, in the introduction to one of his lectures, that he selected his subject as a peg on which to hang his thoughts; in like manner, I feel that, if my paper has served no other purpose, it has been useful in furnishing a peg on which those who have followed me have hung very valuable thoughts. The hour is too late to permit a reply to all the opinions which have been expressed contrary to those of my paper, and, besides, in all of them I have only received the discussion, and in some the correction, which I asked for. One or two points, however, I would briefly refer to. First, as to the use of the hypodermic syringe, instead of the exploring needle. I have used the former at times, but I prefer the latter, because it is easier to clean, and I feel a little safer in employing it for this reason. Second, as to the treatment of painful ulcers. I have found it very useful to cauterize these—which in a large number of cases are syphilitic—thoroughly with strong nitric acid, and then dress them with oil or an ointment. According to my observation, this is usually followed by complete relief from pain as soon as the pain of the application, which does not last long, passes away. Finally, in regard to the production of ulcers by the straight splint, which has been mentioned as an objection by one of the speakers. I think it is safe to say that, whenever a surgeon finds the use of any apparatus causes ulceration, it is wise for him to abandon it. But, in my own experience, this result has never followed the use of the straight splint. Further, as to the efficiency of the splint; I have used it now for about three years, without accident, and with such good results that, notwithstanding any theoretical considerations to the contrary, I have no hesitation in continuing to use it, or in recommending its use."

Editorial Department.

Periscope.

Traumatic Tetanus.

The *London Medical Times*, March 14, 1885, says that Prof. Verneuil, in a clinical lecture delivered at La Pitié (*Gazette des Hôpitaux*, January 31), observed that a long time had elapsed since a case of traumatic tetanus had presented itself in his wards, when a youth, in an otherwise good condition of health, was brought in with a moderate amount of trismus which had supervened ten days after his finger had been crushed. The attack was moderate, and the robust frame and age of the patient were in his favor; still, he was suffering from tetanus of traumatic origin, and was therefore placed in Bonnet's apparatus in order to secure absolute immobility of his body, which was kept at a constant and elevated temperature by being completely enveloped in wadding. Large doses of chloral were also at once administered—opiates and morphia being held in reserve in case the chloral should not suffice. At the same time he was suitably fed, and was ordered to be gently purged should constipation supervene. "Such is my usual mode of treating mild cases of tetanus, keeping the patients in a state of absolute repose, because it has been demonstrated that any movement, friction, or external irritation, aggravates by reflex action the tetanic phenomena. In the same way the maintenance of a constantly-elevated temperature has been shown to be highly useful, and this has sometimes been sought to be accomplished by means of vapor baths and similar means; but the very act of drying the patient on leaving the bath proves a source of irritation. The employment of wadding has also the object of preventing any chills occurring in those subjects who, by the fact that they are tetanized, are liable to a more or less abundant transpiration. I first had recourse to chloral in consequence of its useful effect in delirium tremens, and in its employment I have been very successful. Since that time, indeed, its use has become very common.

During the war of 1870–71, when, unfortu-

nately, we had occasion to observe numerous cases of tetanus, the treatment I have indicated was successful in 50 per cent. of the cases. Curare, morphia, belladonna, etc., had been tried, but these different agents were only successful in a case or two, now and then. Chloral, on the contrary, is a medicinal agent of the first order, and the failures which have attended its use in some cases are due either to its having been badly administered, or to its not having been absorbed. The question therefore arises as to how it should be given, and for how long a time. There is no precise dose, but under its influence the patient must be plunged into a constant sleep. Some persons have said that chloral is a toxic agent capable of producing gastric accidents, and recommend its being administered by intravenous injections. For my part I do not believe this, and I have never found any accident result from its employment, so that I protest against these injections, except under circumstances to be presently mentioned. I give it by the mouth, and if by chance it is not supported by the patient, I then resort to the rectum. The primary indication is to plunge the patient into a kind of continuous coma—a coma which in nowise interferes with his alimentation. But it must be well borne in mind that it is not sufficient to give the chloral for a few days in order to cut short the tetanus and obtain a cure, under pain of soon witnessing relapses of the disease. On the contrary, it must be continued during a mean period of from 15 to 18 days. I have seen tetanic accidents supervene after 10, 12, or 15 days of treatment, and was nearly losing a patient on the 18th day in consequence of my having suspended the administration of the chloral on the 15th day. To sum up, give sufficient doses, and prolong them *at least* for 15 days, if not more, and suspend them only after having progressively diminished the dose, decreasing this, for example, from 12 or 15 grammes, to 10, 8, or 7 grammes per diem. We must also bear in mind that, in some individuals, chloral is not absorbed. The fact is easily determined, first, by the persistence of the symptoms, and secondly and especially by examination of the urine, in which when it is absorbed it is found in its natural condition. If, when given by the mouth, it is not absorbed, and the same result follows a trial by the rectum, then intra-venous injections may be resorted to. As a general means of treatment, I reject these injections in consequence of their great danger, chloral having the power of inducing with the greatest facility terrible thromboses and emboli. Moreover, it is really not possible to administer these injections to the same patient four times per diem during a period of 18 days. * * * *

Our patient is at the present time in a satisfactory condition, taking his nine or ten grammes of chloral per diem, and opening his mouth to the extent of twelve or thirteen millimetres. The treatment must not be relaxed on this account, but continued in all its vigor. If, as I hope, this patient should be cured, it will be said, perhaps, that the case is a slight one, that the tetanus came on only tardily, viz., the tenth day, and that the chances of cure were so much the greater. This is a profound error. Tetanus which is tardy in its advent, like that which is slow in its progress, may very well, all of a sudden, assume great gravity, and carry off a patient. What constitutes its gravity is its localization, the muscles playing a very unequal part in life, according to the region which they occupy. The whole body may be tetanized without danger, as long as the muscles of the larynx, of the pharynx, of the lungs, and of the heart are not invaded; while, on the contrary, if any of these are seized alone, death may supervene with the greatest rapidity from suffocation, dysphagia, or spasm of the glottis. When phenomena like these supervene, two means are at our disposal: first, the continuous electrical currents by which I have been enabled to save patients who were on the point of succumbing; secondly, tracheotomy, which has also in these cases furnished me with some remarkable recoveries. Dysphagia is also one of the most serious of accidents, for neither medicines nor food can any longer be taken, and we have spasms similar to those of hydrophobia. I have tried on such an occurrence to pass the œsophageal tube, but without success; and if I found myself again in the presence of so marked a case of dysphagia, I should certainly not hesitate to practice gastrostomy in order to be able to feed and administer medicine to the patient, everything being, so to say, admissible in such cases."

Jaborandi as a Galactagogue.

Dr. Charles Wesley Rook thus writes in the *Jour. Am. Med. Ass.:*

Mrs. J. B. S., a primipara, confined January 1, 1884. Labor natural and comparatively easy; child, female, average size, and well developed. As the breasts secreted no milk, the child was artificially nourished for a few days. The mother and child progressed well until January 6, when I was hastily summoned, and found Mrs. S. suffering severely from headache, high fever, the surface of the body being hot and dry, pulse 130 per minute, and her breasts more tense and painful than they had yet been. Not having with me anything that would give her relief more quickly, or better meet the indications present than the extractum pilocarpi fluidum, she was given a ℥xij. dose, with directions for its repetition every half hour until free diaphoresis was induced. The desired effect followed the third dose.

Simultaneously with the appearance of the perspiration and the increased flow of saliva, the milk began flowing in a stream from the left breast, and so continued during the active stage of diaphoresis. On the following day, while the skin was yet moist from the jaborandi received the evening previous, milk began flowing from the right breast.

At no subsequent period has that little child lacked nourishment. In the discussion following the reading my paper, with reference to the case just mentioned, this question was asked: "Don't you think the milk was just about ready to be secreted, and that its secretion would have occurred soon without the use of jaborandi?" I answered: "That, as the secretion was not established before, and occurring in such abundance upon the exhibition of jaborandi, I naturally attributed this sudden increase of functional activity to the jaborandi."

Since then, I have administered jaborandi in four cases in which there was a deficiency of milk secreted, with the intention of increasing the supply, and with results, in each case, nearly as marked as in the one reported. It is to neither of these cases that I ask your attention, but to another case in which I claim strong circumstantial evidence, if not proof positive, concerning the galactagogue action of jaborandi.

Mrs. L. S. M., who is in feeble health, weighing less than 110 pounds, is thirty-eight years of age, been married fifteen years, and has given birth to nine children, five of whom are now living. Mrs. M. furnished an abundance of milk for the nourishment of her first child, but on account of a failure of her supply of milk, the cause of which I could not learn, she was not able to nurse either of her next seven children, which in lieu of their mother's breast received the bottle. Of the seven there yet remaineth three little pale-faced children as living witnesses to the preservative power of the bottle.

January 3, 1885, I was called to see Mrs. M. On my arrival I found the labor just completed. An average-sized male child was born, and being yet attached to the cord, the latter was severed, and the mother and child made as comfortable as possible. Inquiry concerning the condition of the breasts was made, when the history as above noted was elicited. On physical examination of the mammary glands, no signs of functional activity could be observed within them. Directions were accordingly given for the artificial feeding of the child. I then told Mrs. M. that if her milk did not appear within a few days I would give her some medicine which would cause the secretion of milk in abundance. Three days after confinement, the mammary glands yet remaining inactive, she was ordered ℥xxx. doses of extract of jaborandi fl. every half hour, until free perspiration and salivation were produced. The effects were attained upon the exhibition of the fifth dose. The only noticeable effect upon the mammary glands was a slight enlargement. My patient, being very weak, was allowed an interval of one day in which to somewhat recover from the depressing effect of the free diaphoresis; then, as the condition of the mammary glands remained unchanged, she was given four ℥xxx. doses at intervals of one-half hour, when the usual effect upon the skin and salivary glands was produced, while the following effect upon the mammary glands was noted: On this second exhibition of jaborandi the breasts rapidly filled, becoming tense and painful, but the pain and tension were soon relieved by the free flow of milk from each breast.

Here ended, for the present, any further necessity of artificially feeding the child.

Three weeks later, I was called to see the child, and was informed that more milk was secreted than the child could nurse, the excess flowing freely from her breast. One week later I called in order to obtain a later report for my paper, and was surprised to find that the milk supply had failed, and that the child was again nursing the bottle. I also learned that my patient had had, ever since the first appearance of the milk, a great fear that the supply would soon be exhausted, and wanting to do what she could to continue the secretion, had taken from the commencement, and without my advice, a daily ℥xxx. dose of ext. jaborandi fl. The drug was ordered discontinued for two days, at which time, the mammary glands exhibiting no signs of their former activity, she was given three ℥xxx. doses of ext. jaborandi fl., at intervals of half an hour, which produced free perspiration, salivation, lachrymation, enuresis, and, as we had hoped, a free lacteal discharge from each breast. The further use of the drug is forbidden. Nearly two weeks have elapsed since the last exhibition of the ext. jaborandi fl., and my patient is secreting an abundance of milk. From my own experience with this medicinal agent, I am convinced that, in addition to the properties which make it a valuable diaphoretic, jaborandi has, first, a special stimulating effect upon the mammary secretions; second, the continued exhibition of the agent will be followed by functional exhaustion of the mammary glands; and third, a functionally exhausted mammary gland may, after an interval of rest, be again stimulated to activity by the proper exhibition of jaborandi.

A Needle in the Bladder Simulating Stone.

Mr. Henry W. Freeman reports this case in the *Lancet*, February 21, 1885:

A little boy, under four years of age, was brought to the out-patient department of the hospital by his mother on November 26, 1884, suffering from bladder irritation, with symptoms of stone. The history elicited by Mr. Roberts, the house-surgeon, ran as follows: Difficult micturition, with screaming; pain commenced in August, 1883, accompanied with blood, sometimes more, sometimes less; and this condition of things continued for a year, when the bleeding ceased, and micturition, although painful, became bearable. The child had been sounded frequently for stone during this period, but nothing had been discovered, and as the symptoms were thought by the medical man in attendance to be due to phimosis, the boy was circumcised twice, but no relief in any way resulted.

On admission into the hospital, Mr. Freeman, in conjunction with his colleague, Mr. Ransford, explored the bladder, under chloroform, and on passing a sound into the bladder a grating noise was heard when the instrument was held horizontally and in contact with the posterior portion of the fundus of the bladder, as if a phosphatic calculus were embedded in its coats; but when held vertically, and the curved portion rested on the most inferior portion of the organ, a distinct chink was heard, as if a smooth stone were struck. This, however, was very limited in extent, and it was noticed that the point of the sound could not be got round the foreign body, to determine its size or shape. It was fixed. Digital examination of the rectum revealed nothing. The general consensus of opinion was, that a phosphatic calculus had become embedded in the walls of the bladder, and accordingly lateral lithotomy was performed by Mr. Freeman on December 6. On opening the bladder, a sharp body was felt sticking in the anterior portion of the prostate, lying obliquely over the trigone, and resting against the posterior surface of the fundus, and encrusted

with calcareous matter. A long pair of flat-pointed dressing forceps were introduced, and, after a little manœuvering, a small-sized "darning-needle," measuring $1\frac{5}{8}$ inches in length, and covered for more than an inch with phosphatic deposit, was extracted. The deposit was $\frac{3}{8}$ in. in thickness, and included the sharp point, which was as thickly covered as the rest of the shaft; but the eye—blunt end—of the needle, for three-eighths of an inch, was smooth and free of deposit. There was no hemorrhage. The child passed his urine by the urethra on the thirteenth day after operating; and at the end of a fortnight, the urine becoming excessively ammoniacal—due, as pointed out by Dr. Ray Lankester, to the presence of bacteria—and with a temperature of 102°, he was put on quinine, which speedily settled the thing in forty-eight hours; and, besides stating that the external wound was healed at the end of the third week, and that he contracted measles at the end of the fourth week, there is little to record, as he left the hospital well before the sixth week had expired.

Remarks by Mr. Freeman.—Cases have been recorded where lithotomy has been done in boys where portions of slate-pencil have found their way into the bladder by the urethra, but a needle in the bladder of a child, by whatever route it may have got there, followed by lithotomy for its removal, is of rare occurrence. The position of the needle in this small bladder seemed to me as if that portion sticking in the prostate dammed up in a measure the internal meatus, and the little constant whirlpools of urine around this portion of about half an inch explains why it was bright and gave the metallic ring when struck with the sound. We knew nothing of the needle history until after the operation had taken place; but the mother was positive that a "darning-needle" such as we extracted had been swallowed by this child before her own eyes on Whit-Sunday, May 13, 1883. The needle, according to the mother's statement, was in the child's body about eighteen months, and the question arises how it found its way into the bladder. My first impression was that the needle had been thrust along the urethra by some precocious nurse-girl, but the mother asserts that the child had never been out of her hands. Then came the history of its being swallowed; and if this was the identical needle, how did it get into such a receptacle as the bladder? Did it pass into the bladder by the rectum or by the small intestine; or, bearing in mind the anatomical relations of the ascending and descending colon to the kidneys, did it pass through the bowel into the pelvis of the kidney and thence by ureter into the bladder?

Enteritis and Gastritis Successfully Treated with Ergot.

Dr. Alexander R. Becker thus writes in the *Boston Medical and Surgical Journal:*

Although completely retired from practice for several years, I had occasion, a few months ago, to see what I could do for a gentleman who had been suffering from chronic enteritis for more than four years. This was only one of the protean forms of gout to which he had long been a martyr; but it had persisted, with almost no interruptions, in spite of great and intelligent dietary care, and occasional attempts at specific treatment. In fact, the only interruptions during this long period occurred when the gout appeared "frankly" in one or both feet; but, on the other hand, this had been much less frequent since the enteritis set in than formerly. He had also many times suffered very distressingly from gastric catarrh and dilatation, and several times from acute gastritis.

At the time I speak of his appetite was fairly good, and gastric digestion was fairly well accomplished. But his bowels were in a condition to absorb his whole time and attention. Besides the pain, which was almost constant and frequently severe, and the dejections, which averaged from three to eight or nine daily, he suffered intolerable annoyance from flatulence. The various astringents, mineral acids, arsenic, milk, and lime-water, etc., had been fully tried, and I could find no fault with his very carefully arranged diet.

It was evident that the whole intestinal canal was excessively debilitated, and probably more or less dilated. He had also mitral disease, and dilatation of the heart, and had at times, although not very recently, suffered terribly from asthma. Was there not probably a general arterial debility? and might not *ergot* strike at the root of this trouble? As he is exceedingly susceptible to medicine, I ordered only ℥xxx. of Squibb's fluid extract three times a day, and in a week his bowels were almost well, and have remained so ever since, requiring only an occasional Pil. Rhei. Comp. to prevent constipation. A week or ten days later, he had a very severe attack of gout in the left foot, lasting three weeks. Since then the gouty tendency has been kept down by potass. bicarb. (gr. v., in a glass of claret and water, with his lunch and dinner), and he has been more comfortable than for years.

So far, so good. There is nothing remarkable about the case, except the delightfully prompt and perfect manner in which the medicine answered any hopes—I can hardly say my expectations.

But a few days ago I found that he had been over-indulging his really hearty appetite during the holiday season, and had thereby brought about a severe attack of gastritis. Any food, however bland, brought on immediate and intense pain, which was only partially relieved when the food had left the stomach, which was already considerably dilated. (It is a fact, by the way, that he has developed what might be called gastric gymnastics, for, by lying upon the right side and contracting the abdominal muscles—and he believes the muscular coat of the stomach itself—he is able to force the food up from the depths of the dilated organ, and through the pyloric orifice; and he is made perfectly aware of the success of his efforts by the hot, burning, rasping pain, caused by the passage of the food through the inflamed orifice.) This condition had already lasted three days, and was becoming worse. I at once put him upon the ergot again, and in the same doses, and in forty-eight hours he was completely relieved, and able to bear a reasonable meal without discomfort.

From the previous experience, this is just what I fully and confidently expected. But I am led to report the case by the fact that I cannot find

the least hint or suggestion of such an application of ergot in any book within my reach—even in such as treat fully of acute and chronic gastritis, and recommend (slightly and passingly) ergot in certain forms of chronic diarrhœa. My possibilities of reference, however, are limited here, and I have not the least ambition to claim priority in the matter, but I am anxious to draw the attention of physicians to a reasonable and probable remedy for this very painful and distressing condition, and beg them to experiment with, and report upon it. May it always—as in this one case—"work like a charm!"

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Under the title of "The Jenner of America," Dr. Wm. M. Welch of Philadelphia, gives a biographical sketch of Dr. Benjamin Waterhouse, of Cambridge, Mass., one of the earliest apostles of vaccination in America.

——In an Inaugural Address on our table, Dr. A. Jacobi, of New York, criticises with some severity the prevailing craze to refer all diseases to microbes and bacteria. The same writer forwards a reprint on "Typhoid Fever in the Young," replete with valuable, practical suggestions.

——The Report of the Committee on School Hygiene in Tennessee, by Dr. D. F. Wright, of Clarksville, Tenn., has many wise suggestions in it on the general hygiene of education.

——Dr. A. S. Roberts, of this city, in a reprint before us gives a clinical report of six cases of "Charcot's joints," or spinal arthropathies. Of the differential diagnosis of these affections he says:

"They may be readily distinguished from the common inflammatory diseases of the epiphyses, by the total absence of the reflex neural phenomena—*i. e.*, of pain, both reflex and local, the apprehensive state regarding joint movements, and the reflex or tetanic spasm of the muscles, always associated with joint osteitis. Abscess is never directly associated with the arthropathies, unless incident upon direct traumatism.

"They are more difficult to differentiate from malignant affections of the articulations; but a careful inquiry into the history and course of the lesion, and the presence or absence of central disturbance, are our most reliable guides.

——Dr. R. M. Smith, Professor of Comparative Physiology at the University of Pennsylvania, defends vivisection on the new plea (and a sound one) that it is beneficial to animals themselves. He pertinently says in a reprint before us:

"To prohibit resort to experiment would be at once to doom animals, which we are bound to protect, to the endurance through all time of diseases which might otherwise be overcome. This has been our experience in all diseases which have not yet been capable of experimental study, and we may reasonably hope that the future will greatly extend the scope of our field of action. One thing is, however, sure: Experiment is the only possible avenue by which such success can be reached."

——Dr. Isaac Ott, of Easton, Pa., continues his valuable "Contributions to Physiology," from his private physiological laboratory. The sixth part, which is before us, contains papers on the action of convallamarin, on intestinal peristalsis, on the splanchnics, and on the relation of the nervous system to bodily temperature. These investigations are most praiseworthy, and should secure for their author honorable recognition from the profession.

BOOK NOTICES.

The Physician Himself and what He Should Add to his Scientfiic Acquirements in Order to Secure Success. By D. W. Cathell, M. D., etc. 8vo., pp. 284. Cushings & Bailey, Baltimore. Price $2.00.

The success which Dr. Cathell's work has achieved is merited by the care with which each edition is revised, and the general good sense, honest feeling, and proper spirit which animate the whole. We have before spoken of it as a highly commendable treatise, and we take pleasure in repeating and emphasizing this commendation at the present time, when the fourth edition is offered to the favor of the profession.

The New Local Anæsthetic, Hydrochlorate of Cocaine; and Etherization by the Rectum. By Laurence Turnbull, M. D., Ph. G., etc. Illustrated. 8vo., pp. 76. Price, 50c. Philadelphia: P. Blakiston, Son & Co., 1885.

Of the various monographs on this now famous novelty in therapeutics, we can recommend the above as the best which has yet appeared. It describes the plant and its preparations, its chemical constituents, its discovery, various applications, and modes of administration, and adds special directions for its use in different affections and on different tissues. The author has given close attention to the literature of the subject, and little or nothing has escaped his attention.

The second part of the work is on anæsthesia by the rectum, an important and novel departure in anæsthetic art, and one which, as the author shows, is capable of extensive use, though associated with serious possibilities.

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THE STREETS OF PHILADELPHIA.

The lecture of Colonel Ludlow on our water supply, which we noticed last week, has created a most unexpected, but a very salutary excitement.

Great reforms have been always accomplished by persistent agitation, and in this case the agitation has been furnished ready made by the toolhardy and rash action of Councils in criticizing Colonel Ludlow.

The *gauntlet*, thrown down by Councils, has been taken up by every newspaper in this large city, and with the single exceptions of two insignificant and blackguard Sunday sheets, the action of our governing body has been most justly and most severely condemned.

One paper (the *Bulletin*) has a most scathing editorial, in which it draws a comparison between the efficient Chief of the Water Department, who is doing all in his power to improve the sanitary condition of that portion of municipal government under his control, and the Chief of the Highway Department, who has, so says the article, not only neglected to compel his contractors to fulfil their duty, but has absolutely endeavored to excuse them for non-performance of duty and even to justify their negligence on the ground that the streets could not be cleaned in *winter*.

Let our profession tell Mr. Estabrook, in plain words, that our patients *can have* diphtheria and other filth diseases in winter, and that we, as a body, and a very big body, and an intelligent body that ought to be heard and heeded, would request him to properly perform his duty or to resign and allow some one to occupy his *fat* position that will do their duty.

Our streets are as bad, and as foul, and as unhealthy as is our "water supply."

We have had enough of the "*hush*" policy; the matter should be made so public and so notorious that our people would be forced to remedy our sanitary defects.

But, recently, within a week, we were startled on coming home, in the evening, to see a patent sweeper at work on Broad street (our most prominent thoroughfare). Now, this street is compar-

atively clean, and no doubt our inefficient Chief Street Cleaner will point to this *monument of his fidelity to duty* as a rebuke to his traducers; but let us look into the less prominent streets, and into the courts and alleys, with which, unfortunately, this good old friendly city of Penn abounds, and we will find piles of garbage, three and four feet above the level of the grade of the alley, and as we pass, will see some big, fat, bloated, ignorant, specimen of femininity adding more slops to those already accumulating.

This is not a fancy picture, drawn from the imagination; it can be seen at any time, in sections of the city not far remote from the dwellings of the aristocracy.

Now, we physicians all know that our city is in a very bad sanitary condition; do we not also know that we can exert a great deal of influence if we want to do so?

When we remember how much confidence the majority of patients place in the family physician, we cannot help but realize that a wonderful improvement in our sanitary condition could be made did but physicians combine their powerful influence with the public.

Let us at least endeavor to influence public opinion sufficiently to force our "Highway Chief" to clean the courts, alleys, and more secluded streets of this cholera-threatened city.

In conclusion, we would say that our sanitary condition is no worse than that of all the *large* cities in the country; infinitely better than New York, it is worse than the little town of Pullman, in Illinois; but that is not the point—we want to have the *best* sanitary city in the country.

It may be *Utopian* in its conception; it is both possible and feasible, if our *people* will go to the ballot-box and give us good government.

QUESTIONABLE APPLICATIONS OF PHYSIOLOGY.

A bill has recently been brought before the Legislature of Pennsylvania which is a curious exemplification of the manner in which some persons would attach medical science to the car of reform. The bill was to the effect that physiology should be taught in the public schools of this commonwealth; but that no text-book should be admitted that did not in every section point out the detrimental effects of alcohol on the human system.

The object, be it observed, is not to give correct information of the effects of alcohol, mentioning the beneficial as well as the prejudicial results from its use. But the physiological text-book contemplated is really to be a part of a temperance propaganda in which truth is to be of secondary importance.

We are altogether in favor of temperance, and are ready to advocate any honest plan by which it can be furthered; but we have a fixed opinion that falsifying facts and presenting garbled and untruthful statements, never yet permanently helped a good cause. There are many very able physiologists who believe and teach that a small amount of alcohol daily is a benefit to the health, and a useful stimulant to the mental and physical powers. These physiologists may be in error; but so may their opponents. And as those who favor the moderate use of alcohol are undoubtedly in the majority, there is to that extent a probability that they are right.

The fair statement of the question would therefore be, that while the general tendency of physiological teaching to-day is that small amounts of alcohol are harmless or beneficial, there is a limited but highly respectable number of teachers who consider it injurious in any quantities.

Total abstinence has not gained ground of recent years. The official returns from Washington show that conclusively. In proportion to the population there is more liquor of various kinds consumed now than was the case twenty years ago. We charge this unfortunate fact, in a measure, to the Prohibitionists themselves. To impress their doctrines, they hesitated not to falsify facts, and grossly exaggerate medical results. This came to be discovered, and then their words lost all weight, and their warnings were unheeded even where well-founded.

Let reformers learn that the best of all reforms is to avoid untruthful, exaggerated, one-sided statements. Nothing hurts a cause like a discov-

ered lie. The noble cause of temperance needs no such disreputable allies.

MEDICAL MEN AND MEDICAL SOCIETIES.

We have been tempted every once in a while, after coming away from a meeting of a medical society, to vent our views on the question of the interest taken by medical men in their societies, as evidenced by the attendance upon the meetings.

At a recent meeting of a very prominent society twenty sleepy members were in attendance, and before the meeting was over some of these had slipped away. It is a rare sight to see the hall of any medical society respectably filled, unless it be on some occasion when a supper is to follow the meeting, and then the majority of the members come straggling in late. As we take it, medical societies are supposed to be scientific, and not gastronomic organizations. Of course, we do not mean to belittle the importance of catering to a man's stomach, by no means; for we can well remember a crude anatomical diagram (seen many years ago), wherein, (the thoracic and abdominal viscera being represented,) it could be seen that the nearest way to a man's heart is through his stomach; but we ask whether in scientific bodies a little catering to the mind would not be more appropriate. It was said (very bluntly, it is true, but we fear very justly) by the chairman of the committee of arrangements at the last meeting of the Pennsylvania State Medical Society, that the majority of the papers there read were not worth listening to. Is not the same true of many of the papers read before medical societies? We are not now speaking only of our local societies, but of all the societies of the land, even up to the august American Medical Association. Does not the character of the papers read account in a great measure for the emptiness of the seats? Of course, many men read papers to advertise themselves; but why do they want advertising and notoriety among the profession, a body so notoriously jealous that it is only requisite for a man to obtain some prominence to make for him many enemies, and to invite backbiting and detraction. Many of the papers read before the societies are mere re-hashes, with no earthly use for their delivery save the author's, or rather *compiler's*, thirst for notoriety. We do not wish to *growl*, but we would suggest to those who wish to attract the profession to the meetings of the societies, to spread for them a rather more select mental repast than is usual.

NOTES AND COMMENTS.

The Treatment of Pneumonnia.

Dr. Edwin T. Doubleday publishes in the *Med. Record* (March 28, 1885,) a summary of two hundred and fifty cases of lobar pneumonia treated in the New York Hospital, and from it we extract the following paragraph on treatment:

"Aconite has been used in a few cases. Quinine has been used extensively. When given early it was apparently of marked benefit in giving a mild form to the pneumonia, and in a very few cases cutting short the disease. When given late, in large doses (gr. xv. to gr. xxx.), for reducing temperature, it has had, in some cases, a marked depressant action on the heart. When the case came in before consolidation had taken place, a dose of calomel (gr. v. to gr. x.) was frequently given. I have seen typical physical signs of the stage of congestion (crepitant rale, etc.) in two cases disappear under this treatment. For the delirium, the bromides, chloral, and morphia, very sparingly, have been used. For pain, opium, generally in the form of liquid Dover's powder. For dyspnœa, small doses of atropia, quebracho, dry cups, and when the consolidation is extensive (double pneumonias), inhalations of oxygen (ciii. to cv. p. r. n.). For stimulants and heart-failure, ammonium carbonate (gr. v. q. 3 h.), fresh tr. digitalis (gtt. v. to gtt. xx. q. 3 h.), and alcohol. Patients are generally put on stimulant treatment as soon as admitted, and the alcohol is rapidly increased as long as the pulse remains poor and the tongue dry, or until the breath becomes alcoholic. Whisky is the form of alcohol used. The amount of alcohol needed varies much. Some cases required twelve to eighteen ounces in the twenty-four hours. Lately antipyrin has been used for high temperature. It was given in powder, gr. xxx.; and at the end of an hour, gr. xv.; if required, gr. xv. were given at the end of the third hour. It sometimes caused slight sweating and slight cardiac depres-

sion. It gave rise to no gastric disturbances. Temperature fell one to three degrees, and staid down one to eight hours. The antipyrin was used in twelve cases."

The days on which patients died most frequently were as follows: Eighth day, 17 cases; sixth day, 13 cases; fifth day, 12 cases; ninth day, 10 cases; fourth, seventh, and tenth days, 9 cases each.

In one case the patient, while convalescing, suddenly cried out, complained of great pain in the chest and dyspnœa, and rapidly became cyanosed. Oxygen caused the cyanosis to disappear. The heart was stimulated, but the patient died in two and a half hours of heart failure.

General results, according to age:

	Complicated.		Uncomplicated.	
	R.	D.	R.	D.
1–10 years.....	.....	.....	2	....
10–20 years.....	3	2	13	3
20–30 years.....	23	15	35	15
30–40 years.....	13	27	15	5
40–50 years.....	6	25	6	4
50–60 years.....	1	8	5	4
60–70 years.....	2	8	5	1
70–80 years.....	1	.....	....	1

According to the class of case: Uncomplicated cases, 78, or 68.4 per cent. recovered; 36, or 31.5 per cent. died; complicated with pleurisy, 18, or 62 per cent. recovered; 11, or + 37 per cent. died; cases with other complications, 34, or 31 per cent. recovered; 75, or 68.8 per cent. died; of all cases, + 51 per cent. recovered; 48 per cent. died, per cent., excluding those moribund on admission, 62.31 recovered; 37.69 died.

He attributes the high death-rate to the following causes: The large number of complicated cases, the large number of those past treatment and moribund on admission, the patients being alcoholics as a rule, and finally the late day of admission to the hospital.

Poliomyelitis Anterior in Adults.

Dr. Gustavus Eliot, of New Haven, records, in *The American Journal of the Medical Sciences* for January, a carefully-noted case of poliomyelitis anterior occurring in an adult. The progressive development of muscular weakness, unattended by febrile symptoms, but accompanied by diminution of the size of the limbs, by abolition of the patellar tendon reflex, and by sensations of numbness, yet without loss of tactile sensation, and without interference with the function of either the rectum or bladder, rendered the diagnosis clear and indisputable.

A large proportion of the reports of cases which have been published contain little or no information concerning the details of treatment, and in many others the multiplicity of drugs prescribed renders any reliable conclusions in regard to the effect of each almost impossible. Bromide of potassium, belladonna, strychnia, ergot, and iodide of potassium, have been most often employed, and most praised. Counter-irritation, baths, rubbing and exercise, and electricity, are also included as important elements in most plans of treatment. From a careful study of the results of various plans of treatment, as reported by various observers, Dr. Eliot deduces the following conclusions:

1. Counter-irritation and ergot should be employed early in every case.
2. Massage and electricity should be used as soon as there is any evidence of improvement.
3. Little, if any, effect can be expected from iodide of potassium.
4. Belladonna and the bromides should be used only with extreme caution.
5. Strychnia should be entirely avoided.

Removal of the Coccyx.

To the New York Pathological Society (November 26, 1884), Dr. J. A. Wyeth presented the coccyx removed from a male patient thirty-six years of age, and a native of South Carolina, who came to New York two years ago for surgical relief. The patient received a fall about four years ago, striking upon the buttock. No peculiar symptoms developed at the time, but afterward he suffered occasionally from spasms of the sphincter ani muscle. He was examined by a physician who said he detected a fissure of the anus, and operated upon the patient with a knife, but the disease was not relieved, and he was again operated upon for the same fissure by stretching.

Dr. Wyeth saw the patient about six weeks ago, and detected that the coccyx had been displaced forward, and was projecting directly upon the posterior wall of the rectum, so much so that when the finger was introduced he found a kidney-shaped passage, two and a half inches above the anus. In the meantime, the patient had become filled with the idea that his case was beyond help. Dr. Wyeth removed the coccyx, and for two or three weeks after the operation the patient was relieved, and Dr. Wyeth believed that recovery would ensue, although the patient was unwilling to admit that he was cured.

Bacteriology Run Wild.

From a foreign exchange we learn that at the anniversary meeting of the Royal Microscopical Society, held recently, the president, the Rev. Dr. Dallinger, gave a lucid and exhaustive description of what is believed to be a septic organism not hitherto described. The new organism first came under notice about four years ago in an exhausted maceration of codfish, which had decomposed in a broth made from rabbits. The organism is of suboval shape, and measures $\frac{1}{10000}$ inch in length by $\frac{1}{19500}$ inch in breadth; it has no fewer than six long thread-like flagella, each of which is three times as long as the body. The mode of ordinary multiplication by fission presented features of much interest, owing to the problem of the formation of the new and numerous flagella. Multiplication appears also to take place by means of spores. A kind of fusion of two individuals was observed, the movement of the organism being continued during the fusion, but gradually slackening afterwards, when the body breaks up rapidly into very minute portions. The "spores" thus formed were afterwards observed to grow up into the likeness of the parent form, and shortly after to multiply by the ordinary process of fission.

Urticaria and Dyspepsia.

The relation between these two affections is well illustrated in a case reported in the *Med. Press*, by Dr. Banham, who gives brief notes of a case of urticaria occurring in an intelligent woman, æt 25, which had recurred almost daily for two years past, and which had been accompanied frequently with dysphagia to such a degree that when she sat down to a meal, swallowing was often found impossible, and the attempt induced such serious attacks of choking that those around were greatly alarmed. The patient had never shown any indications of hysteria. Dr. Banham saw this patient for the first time three weeks ago. He gave her careful directions as to diet and attention to the state of the bowels, and ordered her a mixture of bismuth and nux vomica, to be taken before meals. Within a day or two the attacks of urticaria subsided, as well as the dysphagia. He thought it not impossible that the difficulties of swallowing had arisen from the mucous membrane of the throat being affected in a manner similar to that of the skin.

Hæmophilia.

Hæmophilia is an interesting disease, and one well worthy of more study than it has received. A very interesting case is reported in the *Med. Press* by Dr. Gwynne of a boy aged 10, who was subject to this condition. This boy he had known almost from his birth, and had frequently treated for hæmorrhages from his fingers, tongue, nose, scalp, and various other parts of his body, caused by injuries generally of a very slight nature. The right knee was slightly contracted, and the lower extremity of the femur was much larger than its fellow. When about a year old he had knocked it when in bed, and in the morning it was found much swollen; since that time the condyles had become enlarged, and that knee has been weaker, and the hamstring muscles slightly contracted. He was an active boy on his legs, except when suffering from some of the effects of slight knocks. Dr. Gwynne has sometimes counted more than half-a-dozen ecchymoses on different parts of the body. His growth was stunted; his height is only the same as that of his brother, who is two years younger. There was no family history to account for this peculiar constitutional condition. His complexion is dark.

A Rare Case of Sudden Death.

Our pathological knowledge is certainly outstripping our therapeutical progress; we know now how to account for many hitherto unaccountable deaths, but we do not yet know how to diagnose many of these cases, or how to avert a fatal termination. One of the most singular cases we have heard of lately we find in the *N. Y. Med. Jour.* March 28, 1885, where we read that to the New York County Medical Association, Dr. Janeway presented the lungs and trachea of a child, two years and a half of age, which died suddenly while walking with its father on the street. He was indebted for the specimen to Dr. Jenkins. A mass of glands existed behind the sternum on the right side, producing tracheal stenosis of moderate grade, and above the bifurcation of the trachea was an ulcer which had been the bed of a cheesy gland found loose in the trachea below, where it had acted as an obstruction to the entrance of air, and thus caused death.

Nerve-Stretching Extraordinary.

The *Medical News* tells us that a recent number of the *Deutsche Med. Wochensch.* records a case of successful cure of severe intercostal neuralgia in a woman by stretching the seven intercostal nerves on the right side from the third to the tenth rib. The patient, aged 60, had suffered from intercos-

tal neuralgia and mastodynia for seven years. The attacks were most severe at night, preventing her from getting any proper rest or sleep. The incision, commenced in the axillary line, was carried from the upper margin of the third rib backwards and downwards to the lower margin of the tenth rib. The nerves, when laid bare, were stretched both centripetally and centrifugally. The operation is stated to have been followed by immediate relief, and the return of sound sleep at night. We scarcely know which to congratulate—the surgeon or his patient; but in any case, sleep must have been peculiarly refreshing to the poor creature who had endured the stretching of seven intercostal nerves.

Special Report.

PROGRESS OF OTOLOGY.

BY LAURENCE TURNBULL, M. D.,

Aural Surgeon Jefferson Medical College Hospital; Instructor in Otology, Post-Graduate Course.

(*Continued from page* 475.)

A report on the same subject—*Tinnitus Aurium*. By George C. Catlett, M. D., Superintendent of the Lunatic Asylum, St. Joseph, Mo. He makes special mention of the influence that aural diseases have upon the nervous and mental disorders. And he believes that neurologists and psychologists do not estimate its importance, or give it due attention in their examinations. The essay is a "condensed résumé of the pertinent literature of the subject;" but he has made some mistakes in regard to the names of his authors, such as "Moas," which should be "Moos;" "Itord" for "Itard;" "Weiber Seil" for "Weber Leil," and some others.

7. *Chrysophanic Acid in Cutaneous Affections of the Ear.** Dr. Strequart (Jour. de Med.) reports five cases of eczema of the scalp, which affected the ears—two cases were acute eczema; two impetiginous eczema, and one chronic eczema of the auricle of each ear. All were completely cured by the internal use of chrysophanic acid in doses of two centigrammes a day.

8. *Exfoliation*† *of the Cochlea Without Deafness.* Prof. Grüber demonstrated a case at the meeting of the Society of Physicians of Vienna, Dec. 12, 1884, which would seem to go far towards refuting the opinion of Helmholtz, that loss of the cochlea is equivalent to loss of hearing power. The patient was a lad of 14 years, who had suffered for four years with otorrhœa and polypus of the left ear. There was paralysis of the facial nerve. In removing the polypus, Prof. Grüber came upon the cochlea in a state of necrosis. Since the operation the patient has improved, the paralysis has almost disappeared, and the boy not only recognizes sounds, but distinguishes musical notes, by the affected ear." Prof. Grüber did not enlarge on the features of this interesting case, but it certainly affords food for suggestive thought, in reference to treatment of diseases of the ear.

Two similar cases have been observed, one by Dr. Cassells, Glasgow, and the other by Dr. Christineck, at Halle.

9. The Journal de Med. et Chirg. Prat., No. 9, 1884, gives Dr. Miot's treatment of *Acute Otitis and Rhinitis in Children*, in which he has employed atropine and obtained very beneficial effects. His method of administration is one milligramme of neutral sulphate of atropine dissolved in eighty grammes of distilled water, and two teaspoonfuls are given every three hours. "Atropine is particularly valuable in aborting coryza, and should be given as early as possible, as it serves to arrest the spread of the inflammation to the eustachian tubes or tympanum, and prevents the occurrence of otitis."

For adults similarly affected, one milligramme of sulphate of atropine may be dissolved in forty grammes of water, and given in the same doses.

10. A paper *On Syphilis of the Ear*, published in the Annals des Maladies de l'Oreille du Larynx, etc., May, 1884, by Dr. Jigu. He treats of syphilis of the external ear, middle ear, and internal ear, and auditory nerve respectively, giving his opinion to some length, and concludes his subject with hereditary syphilis of the ear.

This same publication (the September number, 1884), reports cases of Dr. G. L. Walton and C. J. Blake, *Of Aural Symptoms Occurring in Hysteria, and the Hysterical Element in Aural Disease.* There are unquestionably numerous cases in which the subjective symptoms of an existing aural disease are increased to an extent which gives them undue importance in the mind of the practitioner by the co-existence of functional cerebral disturbance evidencing itself in the train of symptoms to which, collectively, we give the name of hysteria.

13. "*Calomel in the Treatment of Otorrhœa.*" By J. Gottstein, Breslau. Translated by J. B. McMahon, New York. "That the impalpable boracic acid satisfies these requirements better than other means, and that its introduction should be regarded as a positive advance in the treatment

*Journal Am. Med. Ass., Jan. 17, 1885 p. 72.

† Lancet.

of otorrhœas, is proved by the universal recognition of its worth and the rapidity with which it has been adopted by aurists. While the advantages of this remedy are great, and I have learned to value them fully, it cannot be denied that the remedy fails in a considerable number of cases, and the result is often relatively tedious. This occurs not only in complicated cases (with destructive processes, advanced pulmonary phthisis, inflammation of the upper part of the tympanic cavity, and the perforation of Schrapnell's membrane), which Bezold has already excluded in his estimate of the value of the boracic acid treatment; but it happens also in simple suppurations, in which the result depends either exclusively or in great part on the maintenance of antisepsis. It is admitted that boric acid is one of the weaker antiseptic agents. It is on this account that various authors have sought the more efficient antiseptic methods of treatment suitable for the ear. As substitutes, iodoform and corrosive sublimate (Wagenhäuser) were proposed, and still more recently by Bürkner, red precipitate in conjunction with sublimate. The iodoform has proved satisfactory in no way. I myself have no experience with the red precipitate, but the communications of Bürkner establishes beyond doubt the very limited range of its utility. The sublimate, which has a most extended application in surgery on account of its powerful antiseptic properties satisfies only one requirement in the treatment of otorrhœa—namely, to render the ear temporarily aseptic. It does not fill the other equally imperative indication, to exclude permanently the disease germ as far as possible. So far as I can learn from the literature at my disposal, Wendt was the first to recommend calomel as a local application in purulent otitis. To what extent he has used it, I do not know. "Calomel is also recommended for insufflation into the ear," by Urbantschitsch. The same author also refers to the occasional favorable action of the mercurial preparations in general in purulent inflammation of the middle ear. Neither Wendt nor Urbantschitsch have employed it as an antiseptic agent. The latter includes it among the astringents. I have satisfied myself that the remedy is absolutely free from irritation to the mucous membrane of the middle ear; that it forms neither upon or in the mucous membrane any precipitate difficult of removal; that surprising results are often obtained under its use.

The method of procedure is as follows: The ear is, in the usual way, syringed carefully with a weak sublimate solution (one-tenth per cent.); the residue of the secretions is forced into the external meatus by the employment of Politzer's method, and then removed by syringing; and finally, the ear is well dried with cotton. The calomel (vapore parat) is then blown in through a powder-blower,* and the auditory canal closed as well as possible, by means of cotton. The further treatment is the same as with the boric acid.

There is surprising diminution of the discharge in the first few days almost without exception; in acute cases, however, which come early under treatment, the discharge of pus remains the same for from two to four days, and then undergoes a rapid decrease. I have never noticed any unpleasant effects, local or systemic.

Dr. A. Gottstein, of Berlin, has made use of the calomel treatment at Hartmann's Polyclinic. under its use a slight stomatitis was noticed in a weakly exhausted child. From this point of view there are to be considered fifty-seven cases, twenty-seven of acute, and thirty of chronic otorrhœa. Of the thirty chronic cases, thirteen were cured within the first ten days, seven between the tenth and twentieth days; between this and three months, seven; two remained uncured. The final result is not known in one case, which was beginning to improve. One of the unsuccessful cases had previously been treated with boric acid, and also with caustic, after the method of Schwartze.

Among the acute cases were some very severe inflammations of the middle ear. The following may serve as an example:

A boy of eight years was attacked with otitis, right at the beginning of an outbreak of the measles, left, two days after, both resulting in perforation and otorrhœa. In spite of careful treatment by the family physician, Dr. Goldschmidt, who used syringing and boric acid, the suppuration continued. After three weeks a mastoid periostitis, right side, developed with marked fever and severe pain in the head. Thereupon my colleague, Dr. Goldschmidt, referred the patient to me for treatment. By the second day the suppuration on the left side had permanently stopped, on the right there was diminution of the discharge, and a cessation of the signs of inflammation of the mastoid process. On the fifth day of the treatment there was a new development of fever, headache, and tenderness in the mastoid region. The auditory canal was found dry, and no perforation was to be seen. Treatment

*The powder-blower of Kabreiski, Centralblatt für Chirurgie, 1883, No. 331.

consisted in paracentesis of the drum-membrane, evacuation of pus with the air-douche, syringing with sublimate, and insufflation of calomel. Improvement followed. On the sixteenth day of the treatment complete recovery, perforation closed, and hearing good.

Among the chronic cases cured were some which had lasted for years, and had been repeatedly treated by different methods without success.

I have in order to obtain a basis for comparison, treated patients suffering with an otorrhœa of both sides, with the sublimate and calomel for one ear, and boric acid for the other. For this purpose I have generally selected acute cases as presenting less difference in the local conditions of the two years; yet, although these comparative tests give results favorable to the calomel, I cannot consider them as conclusive, for under similar treatment of both ears, we often observe considerable difference in the duration of the disease on either side; a large number of observations will be necessary to decide the question.

Nevertheless, I hold to my belief that the conversion of the calomel into mercuric chloride in the middle ear does take place. In favor of this view, we have the analogous behavior of calomel when applied to the conjunctival sac; secondly, the efficiency of this remedy in otorrhœa, which admits of no other explanation on account of the insolubility of the calomel; furthermore, the resemblance of the local changes which sometimes occur in the mucous membrane to those produced by the sublimate; and finally the observation made by Dr. A. Gottstein, of a stomatitis after the application to the ear.

15. "*Trephining in the Mastoid and Tympanic Disease.* Dr. W. J. Wheeler, F. R. C. S. I., reports* two cases in which he performed this operation and intentionally exposed the dura mater, a procedure considered by otologists to be a great risk. But notwithstanding the great danger, the patients recovered.

16. "*Peroxide of Hydrogen in Mastoid Abscesses.*" Dr. A. E. Prince, of Jacksonville, Illinois (St. Louis Med. and Surgical Journal, March, 1884), reports his employment of the peroxide of hydrogen as a cleansing agent in suppurating cavities, mastoid abscesses, etc. "Though inferior to iodoform as an antiseptic, it has the inestimable quality, like it, of producing little or no irritation when used about tender organs."

17. Dr. Samuel Sexton, in behalf of "*The Better Education of Children with Defective Hearing in Public Schools*" (New York Med. Record, December 20, 1884), says: "Among school children of the poorer class great injustice is being done in permitting children to struggle for an education under the disadvantages arising from deafness, without the aid of methods which experience has shown to be of advantage in such cases."

18. At the New York County Medical Society, January 25, 1885, "*Affections of the Ear Influenced by or Dependent on Malaria and Defective Drainage.*" was the title of a paper read by Dr. O. D. Pomeroy. He quoted extensively from authors who had reported cases of ear disease of supposed malarial origin, including the names of Weber-Liel, Hotz, Vollotini, and others. Drs. Hackley, Simon Baruch, John C. Peters, and Holcombe, discussed the subject to some length.

Cocaine in Affections of the Ear. Dr. D. B. St. John Roosa reports his experiments with cocaine on the membrana tympani in a case of tympanic neuralgia, which was relieved in ten minutes after the instillation of the solution. (*New York Medical Record*, October 25, 1884.)

Dr. H. Knapp, in his notes on experiments with cocaine on the mucous membranes, states, "that the removal of polypoid granulations to be almost painless, and in cases of perforations of the drumhead, cocaine anæsthetized the mucous membrane drum cavity, but not the drumhead," and also found it to have the same temporary effect on the mucous membrane of the mouth and nose. (*Med. Record*, October 25, 1884.)

*Hydrochlorate of Cocaine in Acute Otitis Causing Deafness from Coryza.** This form of deafness is directly traceable to nasal, naso-pharyngeal, or pharyngeal disease of the lining membrane. Plugging of the openings of the eustachian tubes, viewed from a peculiar mechanical standpoint will certainly cause or aggravate deafness. Hence it is of the utmost importance that prompt and efficient means should be used in order to relieve the patient and ultimately cure the disease. The application of a four per cent. solution of the hydrochlorate of cocaine to the nose will cause the swelling from acute coryza to disappear for hours, and if repeated two or three times will entirely relieve the occlusion of the nostrils and check the discharge. The great advantage of this local anæsthetic is, that when necessary we are able to apply local remedies without pain of a more potent character.

"*On the Use of the Solution of Cocaine Hydro-*

*Dublin Journal of Medical Sciences, October, 1884. Reported in the New York Med. Abstract, November, 1884.

*The New Local Anæsthetic, Hydrochlorate of Cocaine, etc., pp. 38–39. By Laurence Turnbull, M. D., Ph. G. P. Blakiston, Son & Co. Philadelphia, 1885, p. 77.

chlorate in Acute Throat and Ear Disease."* November 20, G. B. M., M. D., applied for deafness in both ears. On examination, found the sides of the meatus and lumen filled with separated masses of scales several mm. in length, firmly attached to the parts, which, on removal by the forceps, gave him great pain. He also found the pressure of the ear speculum painful, caused by the inflamed under-surface, which was ready to bleed after the removal of the diseased scales. To obviate this pain and allow the removal of this desquamative material, a 4 per cent. solution of the hydrochlorate of cocaine was instilled into the ear every five minutes for fifteen minutes. The anæsthesia was not complete, as pain was felt during the removal of the offending material, and also when introducing the speculum; still he was able to bear it much better with the solutions. There was great improvement in the hearing.

In a little pamphlet entitled "*Hydrochlorate of Cocaine as an Anæsthetic of the Mucous Membranes of the Pharynx, Larynx, Nose, etc.* (Extract de la Révue Mensuel le Laryngologie d' Otologie et Rhinologie, No. 12, December, 1884). By Drs. E. J. Moure and J. Baratoux, Paris. They state that in acute inflammations of the ear, where we have the advantage to employ the instillation of cocaine, they have obtained favorable results with the three and five per cent. solutions. This medicine having also the property of diminishing the secretions, is useful in catarrh of the nose with hyper-secretions of mucus.

We have also obtained a perceptible amelioration of otorrhœa in two cases which were rebellious to the ordinary treatment (Baratoux). But it is especially as an anæsthetic that the hydrochlorate of cocaine presents advantages, since to anæsthetize the pharynx, larynx, or the other mucous membranes, one or more times is sufficient to paint them with a ten or twenty per cent. watery solution of the hydrochlorate of cocaine. (The cocaine is less soluble in water than the hydrochlorate of cocaine.)

The following is the manner of procedure to obtain this end: After having dipped a brush or a tige wrapped with cotton in this solution, we paint, without exception, all the parts we wish to anæsthetize. At the end of one or two minutes, we test the excitability; if it is not sufficiently diminished, we make a second application. Sometimes we are obliged to repeat the operation four or five times. We obtain an anæsthesia which lasts from five to ten minutes. When the persons are very excitable, we are obliged to use a strong solution (twenty per cent.).

Thanks to this method, we have been able to remove with ease, by means of the guillotine of Prof. Stoerk (Baratoux), a polypus on the left vocal band of a patient who had at first such reflex accentuation that it was difficult to introduce the mirror into the pharynx without producing nausea.

We have also employed this process in order to extirpate polypus of the nose. I have in like manner removed from the left vocal band of a patient previously operated on by me for polypus of the larynx, covering almost the entire glottic orifice, a pedicle, which its smallness and the spasmodic contractions of the larynx had prevented me from grasping. Thanks to the anæsthesia of cocaine, I can go slowly into the larynx and, I even add, easily grasp the *neoplasm.* (Moure.)

The galvano-cautery of the tonsils and of the nose is at times very painful. Thanks to painting of the parts with a five per cent. solution, or even a three per cent., the cauterization can be made generally with complete insensibility of the parts.

However, cocaine being toxic* in very small doses, we think that it is advisable not to repeat too often at the same sitting the application, and to employ at the outset a weak ten per cent. solution.

It must be added that the remedy, in spite of its price, which is excessive (seventeen to eighteen francs per gramme), is destined to play an important part in the therapeutics of the diseases of the larynx, nose, ears, as well as other organs.

In regard to the action of cocaine upon the ear, Dr. M. Landesberg, Philadelphia, says: † "In five instances of 'Earache' in children without any assignable cause, I succeeded in effecting almost instantaneous relief by the instillation of two drops into the external auditory canal.

"In a case of furuncle in the external auditory canal, I persuaded the lady, who was averse to any surgical interference, to allow me to try the new local anæsthetic, of which she had heard so much. Four drops abated the sensibility of the parts to such a degree, that I was able to introduce the probe into the canal without causing pain. In view of this fact she voluntarily permitted the operation, if it had to be at all. I made the incision, she cried out, grasped my arm, and sank into a fainting fit."

*See cases, p. 87, "New Local Anæsthetic," etc. By Laurence Turnbull, M. D., 1885.

*This is not the case except in large doses.—L. T.

†Reprinted from Proceedings Philadelphia County Medical Society, 1884.

The following paper on this subject will be found in "*The Archives of Otology*," Vol. XIII., Nos. 3 and 4:

1. "*The Existence of the Tubercle-Bacillus in Aural Discharge, and its Significance in Clinical Diagnosis.*" By A. Gottstein, Berlin. Translated by H. T. Hansell, M. D., Philadelphia.

2. "*On the Cellular Structures of the Human Organ of Corti.*" By H. Steinbrügge, Heidelberg. Translated by H. T. Hansell, M. D., Philadelphia.

3. "*A Case of Double Labyrinthine Disease after Scarlatina, Favorably Affected by Hypodermic Injections of Pilocrrpine.*" By Prof. S. Moos, Heidelberg. Translated by Dr. I. A. Spalding, Portland, Me.

4. "*Acquired Artesia of Both Auditory Passages due to Chronic Eczema.*" By S. Moos, Heidelberg.

5. "*A Peculiar Malformation of the Right Ear with an Intact Labyrinth.*" By Prof. S. Moos, Heidelberg.

6. "*Carcinoma of the Cutaneous-Cartilaginous Portion of the Meatus, with Perforation of the Auricle,*" etc. By Prof. S. Moos, Heidelberg. Translated by J. A. Spalding, M. D.

7. "*Two Cases of Condylomata and One Case of Primary Syphilis of the External Ear.*" By Dr. J. Zucker, of Berlin. Translated by J. A. Spalding, M. D.

8. "*The Results of the Examination of Four Petrous Bones of Two Deaf Mutes.*" By Prof. Moos and H. Steinbrügge, of Heidelberg. Translated by Wm. Rankin, Jr., M. D., Newark.

9. "*On the Comparative Diagnostic Value of Air and Bone Conductors, and of Quantitative Variations in the Perception of High and Low Tones.*" By Gustav Brunner, M. D., Zurich, Switzerland. Translated by J. A. Spalding, M. D.

10. "*A Case of Temporary Sudden Restoration of Hearing after Deafness of Twenty-one Years.*" By Basil Norris, M. D.

11. "*A Case of Objective Noses in Both Ears.*" By A. R. Baker, M. D., Cleveland, O.

12. "*An Improved Form of Eustachian Catheter.*" By H. Lindo Ferguson, F. R. C. S. I., Dunedim, N. Z.

13. "*Two Cases of Deafness from Cerebro-Spinal Meningitis, etc., Ending in Recovery.*" By H. Knapp, M. D., New York.

14. "*Normal and Pathological Anatomy and Histology of the Ear,*" B. H. Steinbrügge, Heidelberg, and "*Pathology and Therapeutics of the Ear,*" A. Hartmann, Berlin.

*Whistles for Audibility of Shrill Notes.** Mr. Galton has contrived a small whistle for conveniently ascertaining the upper limits of audible sound in different individuals. He had it made from a brass tube whose internal diameter was less than one-tenth of an inch. A plug is fitted into the lower end of the tube, which can be pulled out or pushed in as much as desired, thereby causing the length of the bore of the whistle to be varied at will. When the bore is long the note is low; when short, it is high. The plug is graduated, so that the precise note produced by the whistle could be determined by reading of the graduations referred to a table (see appendix). On testing different persons, he found there was a remarkable falling off in power of hearing high notes as age advanced. The number of vibrations per second in the note of a whistle or other "closed pipe," depends on its depth. The theory of acoustics shows that the length of each complete vibration is four times that of the depth of the closed pipe, and since experience proves that all sound, whatever may be its pitch, is propagated at the same rate, which under ordinary conditions of temperature and barometric pressure may be taken at 1,120 feet, or 13,440 inches per second—it follows that the number of vibrations in the note of a whistle may be found by dividing 13,440 by four times the depth, measured in inches, of the inner tube of the whistle. The largest whistles suitable for experiments of the human ear have an inner tube of about 0.16 inches diameter. But we cannot be sure of sounding with them a higher note than one of 14,000 vibrations to the second, unless we use tubes of still smaller bore, but Mr. Galton has not succeeded in producing, as in steel rods, a note that would be both shrill and powerful.

Whistles for High Notes. When the limits of audibility are approached by means of the whistle, the sound usually gives place to a peculiar sensation, which is not sound, but more like dizziness, which some persons experience to a high degree. Young people hear shriller sounds than older people, and it is a proverb in Dorsetshire, that no agricultural laborer who is more than forty years old can hear a bat squeak. (This fact Dr. Wollaston discovered many years ago, and he endeavored to show that it varied considerably by means of small pipes, but he was not so successful as Mr. Galton with his whistle.) The power of hearing shrill notes has nothing to do with sharpness of hearing, any more than a wide

*Inquiries into Human Faculty and its Development. By Francis Galton, F. R. S. New York; Macmillan & Co. 1883, p. 38 (see also appendix.) These whistles are made by Mr. Hawksley & Co., surgical instrument makers, 307 Oxford street, London.

range of the key-board of a piano has to do with the sound of the individual strings. We have our limits (but as I have stated, this can be improved by cultivation.) Mr. Dalby, of London, a distinguished aurist, was presented by Mr. Galton with one of these whistles, which he has employed as I do the steel rods in the diagnosis of defective or impaired hearing, and has come to the same conclusions—that when the power of hearing high notes is wholly lost, the loss is commonly owing to failure in the nerves, but when very deaf persons are still able to hear very high notes if they are sounded with force, the nerves are usually all right, and the fault lies in the lining of the auditory canal.

CORRESPONDENCE.

Throat Lump.

EDS. MED. AND SURG. REPORTER:

In reading of the throat and tongue trouble of our distinguished General U. S. Grant, a case in memory comes back to me from war years. Being assigned as Surgeon of the Department of the Monongahela at Pittsburgh, Pa., in 1864 and 1865, a soldier presented himself, complaining of a throat lump. Said he could not eat hard bread, and suffered constant pain in his jaws and head. I at once gave him attention and found the fauces and submaxillary glands, with the excretory ducts of the sublingual glands, tense, painful and much enlarged. I asked him to allow me to open his throat lump, as he described it, which he agreed to, and I made a free incision at the base of the tongue, also in maxillary region over facial artery. I had considerable hemorrhage, but it was controlled by Monsel's solution and compress of cotton. No pus presented as I expected, but on a subsequent examination I detected something foreign, and on adhering to it with a pair of tooth forceps, found and secured a *salivary calculus* of the size of a hickory nut, corrugated along one side, yet very solid and consistent. I found this salivary calculus on the right side of the tongue, and well imbedded under that necessary organ. During my operation he had spasms of the jaws, and I feared tetanus; yet I kept him well etherized, and even after kept him under hypnotic influence for days. His recovery was complete, and what I looked on as a certain malignant cancerous disease proved to be entirely curable by bold and free cutting, and not cauterization and palliative treatment or cancer-cure ointments. I neglected speaking of the irritation of the fifth nerve, occasioning great pain in the fauces in the regions of the parotid, ear, temple and crown of the head, and the excessive secretion of saliva. So much relief followed my cutting, that the offending branch of that nerve was divided. After four years of suffering quietly and alone, relief came to my soldier patient when he had made up his mind to die by choking, and that only a few weeks was allowed to him. I had him discharged from the U. S. service sound and well, and returned to his home and family.

West Bridgewater, Pa. JOHN C. LEVIS, M. D.

Pill Irisin Comp.

EDS. MED. AND SURG. REPORTER:—

Some one inquires what the pill "Irisin Comp." is used for, and wants "definite information." The last is the most difficult to give.

I have used some thousands of them, and got in the way of using them because they were *small*, and for various *headaches* which seemed to me to depend on some inaction of the biliary or digestive apparatus, when a mild laxative was indicated, and when the nerves wanted a slight stimulation which needed to be kept up for some weeks. Some other combination might have done as well, but this has had the advantage of convenience, and been very successful when the means previously employed had failed. One pill at night, or night and morning at the first, is the usual dose. I think a half of a grain of hyoscyamus would improve the pill.

Boston, Mass. E. CHENERY, M. D.

NEWS AND MISCELLANY.

Vivisection in Germany.

The Berlin correspondent of the *Brit. Med. Jour.* thus writes:

A highly important order has just been issued by Herr von Gossler, Prussian Minister of Education and Medical Matters, founded on answers received from the medical faculties of all the German universities concerning the question of vivisection. The Minister says that the reports he has received "have strengthened his conviction that experiments on living unimals have been resorted to and performed at the German universities in a moderate and permissible manner; and that, side by side with the interests of scientific inquiry and academic teaching, the demands of humanity have been duly observed." But in order to avoid all doubts in this direction for the future, the Minister of Education has laid down the following regulations:

1. Experiments may only be made on living animals for the purposes of serious inquiry or for giving instruction of importance.

2. Experiments on animals are only permissible during lectures so far as they are necessary for the lecturer to explain his subject-matter.

3. The operative preparations for the lecture experiments are, as a rule, to be made before the commencement of the demonstration, and in the absence of those attending the lecture.

4. Experiments on animals may only be performed by the Professors and lecturers, or on their responsibility.

5. Experiments which can be made on the lower animals, without essential prejudice to the result required, are only to be performed on these, and not on the higher animals.

6. In all cases in which it is not absolutely incompatible with the object of the experiment, the animals must be put under the full influence of

anæsthetics, in such a manner that the effect of the anæsthetics will last for a sufficient time.

Commenting on the subject in an article entitled "Vivisection and Science," in the last number of the *Deutsche Medicinische Wochenschrift*, the editor of this paper points out that the question whether vivisection-experiments were an indispensable means for scientific inquiry, which could not be dispensed with without essential injury to medical science, was unanimously answered in the affirmative by the medical faculties of the German universities. The faculties were asked, secondly, if lectures with vivisection could be abandoned entirely, or partially, without injury? and, with the exception of one, they all replied in the negative. It has, moreover, been shown that the number of animals used for this purpose is relatively extremely small, and that in by far the majority of cases, the operative preparations have been hitherto made before the lectures, and that anæsthetics have always been used except where their application would have been prejudicial to the object of the experiment; and, last of all, no case of deliberate and wanton infliction of pain could be brought forward. The author of the article says that the medical faculties of Germany, Austria, and Switzerland, are unanimous on this point, and he concludes as follows:

"We have already pointed out that the prohibition to experiment on animals, now become law in England, despite the testimony of all those questioned on the subject, has injured biological science there in the most perceptible manner in the few years that have passed since this prohibition became the law of the land. The discussion of the last two years, on the etiology of infectious diseases, has shown, with special explicitness, that the English are so far behind the results of inquiry of other nations in this field, that English physiologists and pathologists who occupy themselves with the question, are no longer even in a position to apply a criticism that is at all to the point."

This opinion, however strongly put, justifies the sentence in your article in the *Brit. Med. Jour.* of January 10: "Owing, however, to the efforts of anti-vivisectionists, the valuable researches, begun with so much promise to science, have been arrested in England." Anti-vivisectionists number several supporters in Germany amongst persons of great influence, and endeavors have been made in the daily press, by distorting facts, to utilize all the stores of pathetic oratory to work upon the feelings of the public. The Minister of Education in Prussia had a difficult task to collect all the material, and his decision has shown that he is determined to defend the interests of science.

Marion County, Florida, Medical Society.

The Medical Society of Marion County, Florida, was organized in February of this year. Dr. George T. Maxwell, the President, delivered the Inaugural Address, a well-considered essay on the value of medical science.

It gives us pleasure to announce the formation of county medical societies. Would that the physicians of every county in the United States would devote at least one day each six months to assembling together in such an organization.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended March 28 1885.

Battle, K. P., assistant surgeon. To proceed to Memphis, Tenn., for temporary duty, March 27, 1885.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended April 4, 1885.

Murray, R. D., surgeon. Granted leave of absence for one week, March 31, 1885.

Bratton, M. D., assistant surgeon. To proceed to New York, N. Y., for temporary duty, April 2, 1885.

Watkins, R. B., assistant surgeon. To proceed to New Orleans, La., for temporary duty, April 2, 1885.

APPOINTMENTS.

The following candidates having passed the examination required by the regulations were appointed assistant surgeons by the Secretary of the Treasury, April 1, 1885, viz.:

William D. Bratton, M. D., of South Carolina, and Ralph B. Watkins, M. D., of Connecticut.

Items.

—Dr. J. A. Bolard has been reëlected superintendent of the public schools of Millville.

—In the *N. Y. Med. Jour.*, February 28, Dr. A. G. Gerster publishes a paper on the surgical dissemination of cancer.

—The Texas State Medical Association holds its seventeenth annual meeting at Houston, beginning on Tuesday, April 21, 1885.

—The Annual Commencement of the Louisville Medical College was held February 26. Sixty-three graduates received the degree of M. D.

—Gentlemen prominent in the medical profession and business and social circles in Worcester, Mass., are taking steps for the formation of a cremation society.

—In the *N. Y. Med. Jour.*, February 28, Dr. Frank Donaldson, of Baltimore, publishes a paper entitled "City Air and City Life Injurious to Consumptives."

—An examination into cigarette smoking among small boys shows that in a majority of cases parents are to blame. The fact is, mighty few people are fit to have children.

—An English writer points out the probability that a smoky atmosphere is not a wholly unmitigated evil, since its carbon and sulphur must absorb many germs of disease, and tend to prevent the spread of epidemics.

—Dr. Flint is reported as having said that many lives are lost by starvation, owing to an over-estimate of the nutritive value of beef tea and meat juices. In typhus and typhoid fevers, he says, there is no good substitute for milk and eggs.

—Professor Doremus, who works entirely with his left hand, having had his right arm amputated in his youth, is credited with making over $25,000 per annum by chemical analyses of patent medicines and similar articles.

—The *Med. Record* says that the liquor ammoniæ anisatus of the Germans should be used more largely than it is in flatulence and pyrosis, in the second stages of bronchitis or pneumonia, and in many states of debility.

—Little Boy—"Please, I want the doctor to come and see mother." Servant—"Doctor's out. Where do you come from?" Little Boy—"What! Don't you know me? Why, we deal with you. We had a baby from here last week."

—An opportunity of studying a case of leprosy has been afforded by Dr. Guttmann, who assures the Berlin Medical Society that there can be no doubt that the living bacilli found in the system of leprous patients are really the cause of the disease.

—Professor Ambrose L. Ranney has been appointed to the Chair of Nervous Diseases in the medical department of the University of Vermont, made vacant by the resignation of Professoe W. J. Morton. Professor Ranney will deliver a course of lectures each year in this field in addition to his course upon anatomy.

—The average strength of the French forces in Tonquin during the first six months was 7600, and out of that number 375 died; 82 of wounds received while fighting, 77 of typhoid fever, 73 of intermittent fever, 60 of dysentery, 43 of sunstroke, 17 from accidents, 15 of organic complaints, and 8 of suicide.

—To the Liverpool Medical Institution Dr. Keeling introduced a patient whose scapula had been removed nearly two years before for a tumor involving the bone and surrounding muscles. There had been no return of the disease, and the arm was a fairly useful one.

—In the island of Goa, near Bombay, there is a singular vegetable called "the sorrowful tree," because it only flourishes in the night. At sunset no flowers are to be seen, and yet after half an hour it is full of them. They yield a sweet smell, but the sun no sooner begins to shine upon them than some of them fall off, and others close up; and thus it continues flowering in the night during the whole year.

—Dr. J. W. Flynn writes to the *Med. Record:* "About six years ago I was treating a man, seventy-five years of age, who was suffering from capillary bronchitis, and was doing nicely when gangrenous changes of the distal phalanges of both hands and feet made their appearance, and the lines of demarcation showed in about ten days. After this the patient rapidly failed, and died in comatose condition."

—In Chattanooga, the negro death-rate is more than double that of the whites, and the same is true of Memphis; and yet the census shows that the negroes are increasing more rapidly than the whites. The explanation of this is in the difference between the birth-rates of the two races. A given number of whites have six children born to them in a year, of whom two die before reaching the age of self-support. The same number of negroes, it is said, will have ten children born in a year, and lose five before they reach the age of self-support. The negroes thus lose two and a half times as many children as the whites, and yet gain upon them in the census figures.

QUERIES AND REPLIES.

MESSRS. EDITORS:—

I have a lady patient who can't take the slightest dose of quinine without being followed with a most torturing rash. If in a pregnant state, as small a quantity as two grains will, in less than twenty-four hours, produce abortion or miscarriage. Have given it combined with opium, black haw, bromide, sodium, etc.—all failed to prevent the appearance of the rash. Can you, or some of the subscribers to your wide-awake REPORTER, give me an antidote?

W. P. M.

Dr. N., of Pa., asks the method of using muriate of cocaine in tenesmus. *Ans.*—Two per cent. solution may be inserted on pledgets of absorbent cotton.

Dr. J. B. H., of Mich.—The case you report is quite obscure, and we cannot pronounce upon it from the description you send. We shall be glad to publish it in full if you will write it out.

MARRIAGES.

BAILEY—ABBOTT.—March 4, 1885, in Williamstown, Vt., by Rev. R. D. Miller, Dr. E. P. Bailey, of Oneida, N. Y., and Mattie Abbott, of Williamstown.

DAVIS—WHIPPLE.—March 25, 1885, at the Methodist Episcopal parsonage, in Plessis, N. Y., by Rev. R. F. Whipple, assisted by Rev. W. Howard, George H. Davis, M. D., of Malone, N. Y., and Nettie L. Whipple, daughter of the officiating clergyman.

MASSEY—STAIRS.—March 25, 1885, in the Arch Street Presbyterian Church, Philadelphia, by Rev. John Scott Sands, Dr. G. Betton Massey and Harriet L. Stairs, both of Philadelphia.

NORTON—SEEL—Tuesday evening, April 7, 1885, in the Eighteenth Street M. E. Church, in this city, by Rev. Henry Frankland, assisted by Rev. L. B. Brown, Mr. Albert E. Norton, M. D., and Miss Clara J. Seel, all of Philadelphia.

DEATHS.

BLUNDEN.—April 3, 1885, in this city, Boyle N. Blunden, M. D., in his 28th year.

BURR.—March 30, 1885, in this city, Richard Burr, M. D. aged 66 years.

CURRAN.—Friday, March 27, 1885, in this city, Dr. John P. Curran.

EARL.—Friday, March 27, 1885, at his residence, No. 245 Harrison street, Brooklyn, N. Y., Dr. Thomas Earl, in the 80th year of his age.

ELDER.—April 5, 1885, in Washington, D. C., Dr. William Elder, in his 79th year.

LITTLE.—Saturday, April 4, 1885, in New York city, Jas. L. Little, M. D., in the 49th year of his age.

MACBRIDE.—April 1, 1885, at No. 2031 North Sixteenth street, this city, Dr. G. Vaughan, son of the late James H. MacBride.

SAWYER.—Tuesday, March 31, 1885, at Bedford, N. Y., Platt R. H. Sawyer, M. D., School Commissioner, in the 51st year of his age.

SNIVELY.—Sunday morning, March 22, 1885, in Brooklyn, N. Y., Joseph Culbertson Snively, M. D., aged 49 years.

SWIFT.—Easter morning, April 5, 1885, at his residence, 54 Lefferts Place, Brooklyn, N. Y., William Swift, M. D.

TOWNSEND.—March 5, 1885, at Bridesburg, Pa., Dr. W. W. Townsend, formerly of Chester county, Pa., in his 78th year.

THE

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Original Department.

Communications.

FACTS SERVING TO PROVE THE CONTAGIOUSNESS OF TUBERCULOSIS; WITH RESULTS OF EXPERIMENTS WITH GERM TRAPS USED IN DETECTING TUBERCLE-BACILLI IN THE AIR OF PLACES OF PUBLIC RESORT, AND A DESCRIPTION OF THE APPARATUS.*

BY W. H. WEBB, M. D.,
Of Philadelphia.

It is in accord with the spirit of the age to attempt to get at the root of all things affecting the health of our race. The causes of tuberculosis and influences modifying the progress of the malady claim not only the active interest of those engaged in the field of scientific medical investigation, but the attention of every mind that fully appreciates the universal prevalence and immense mortality resulting from the scourge consumption. It may add somewhat to the interest, if not to the elucidation, of this subject, to trace the progress of thought springing from the observation of clinicians of all ages. By collecting the expressions of the *master-workmen* of different times, we will see that knowledge upon the subject has been steadily progressive, and that what now seem to be proven facts, have been preceded by flashes of truth in almost every epoch of medical history. The discovery of the tubercle-bacillus was not drawn from the inspiration of genius, but from the shaping of clinical facts gathered in the progress of our art, from the time of the Father of Medicine until the day that Koch discovered a peculiar microbe in tuberculous patients.

The word tubercle was used by Hippocrates,* but he applied it principally to designate small external tumors—phymatæ—as hordeolum, furunculus, sycosis, anthrax, wheals, etc. It is said that the word was used by Celsus, about A. D. 20, but no special meaning was attached to it by him.

Franciscus Delebœ Sylvius, who lived between 1614 and 1672, was not only a strong advocate of the doctrines of Hippocrates, but also did much to advance the knowledge of this disease. He was the first to use the word tubercle in designating the hard nodules found in the lungs of the phthisical. He was also the first to speak of the formation of cavities and destruction of the lung tissue by the softening and breaking down of these hard masses. He describes three kinds of consumption—one of blood; one of the lungs, occasioned by bad nutrition; and one of degenerated glands. Through this latter proposition he may be regarded as the originator of the theory of a relationship between consumption and scrophulosis. "He believed that in the predisposed the disease may be excited by contagion."†

As a result of autopsies made by Willis, and also by Bonetus, about from 1640 to 1670, the subject of phthisis was very much advanced.

When Richard Morton's‡ celebrated work ap-

*Read before the College of Physicians of Philadelphia, February 4, 1885.

*"The Genuine Works of Hippocrates." Published by the Sydenham Society, London, 1849.

†Quoted in "A Practical and Historical Treatise of Consumptive Diseases." By Thomas Young, M. D., 1815, p. 178.

‡"Phthisiologia, or a Treatise of Consumption." 2d Ed., London, 1694.

peared, the opinions set forth therein were not only greatly in advance of those of his own time, but were destined to supplant all others, and to be accepted as correct for more than one hundred years after his death. He asserted that all consumption originated through tubercles, and that they gave rise to the dry cough. The idea entertained by Hippocrates, that consumption was due to inflammation and ulceration, he strongly opposed. He also declared that he believed the disease to be propagated by infection. "For," said he, "this distemper—as I have observed by frequent experience—like a contagious fever, does infect those that lie with the sick person with a certain taint." (p. 67.)

Desault* also insisted that tubercles were the essence of consumption, and that ulceration of the lungs and hæmoptysis were the result of the deposit. He believed in the contagiousness of the disease when ulceration had occurred. A statement, which at this day seems to have been almost prophetic, occurs in his writing upon tuberculosis: "Worms," he declares, occasioned by the putrefying lungs, "propagate the disease and cause it to spread."

From the time of Morton to 1793, the subject of tuberculosis commanded the attention of some of the most distinguished men in medicine. (Sydenham, F. Hoffman, Boerhaave, Van Swieten, Sauvages, Morgagni, Cullin, Hufeland, Portal, Stark, Ruysch, Stahl, Reid and Baumé.) At this time Baillie's great work appeared,† in which he demonstrated the existence of tubercles in other organs besides the lungs.

Bayle,‡ an independent worker as well as thinker, insisted most strenuously that phthisis is a general chronic disease, and owes its origin to a special principle—the tuberculous. He, too, denied most positively the teachings of Hippocrates, that consumption was due to inflammation and ulceration. To him is due the credit of discovering what is now known as miliary tuberculosis. "Out of nine hundred autopsies performed by him, he found 624 had tubercular phthisis, 185 the granular or miliary tubercle, 72 melanotic, 14 ulcerous, 4 the calculous, and 3 the cancerous." He says further: "This disease appears always to depend on a peculiarity of constitution. Hæmoptysis is a frequent symptom of consumption, and is sometimes mistaken for its cause; but it often happens that when hæmoptysis has been fatal, the lungs are found full of tubercles."

Laennec, who followed Bayle, declared that all consumptions, including scrophulosis, were nothing but the consequences of the tuberculous specific principle, which might be inherited or be acquired. In demonstrating his theory, he made use of auscultation, which it is said he originated, in accurately determining the diseased condition of the lungs. Laennec's views in regard to the pathology of consumption, notwithstanding he had very strong opponents among his colleagues, were held for a long time. Schönlein, in the main, held with Laennec, but differed most positively with him in making a marked distinction between tuberculosis and scrophulosis. At this time scores of eminent investigators were busy with this subject, and the confusion of ideas that then existed occasioned the promulgation of many widely-divergent theories; thus were described tuberculization of pus, tuberculous pus, gray tubercle, yellow tubercle, gray infiltration, tubercle granules, tubercle corpuscles, granulosis, albuminous tubercle, etc., etc. Indeed, the number of forms assumed by this disease was limited only by the number of writers upon it. This tended to give to the simplicity of the theories advanced by Laennec a great attraction to many, who held to them for sheer comfort of mind. Out of this dire confusion a way was opened by Virchow, whose cellular pathology gave us a positive science by which the theories of previous writers were exploded.

In the early part of 1882, Dr. Robert Koch made his name immortal by giving to the world the result of the researches and experiments* by which he swept away all false ideas that had existed in regard to tuberculosis for a period of over two thousand years. It was then that he made the announcement that "tuberculosis is a specific, infectious disease, caused by a specific micro-organism—the bacillus tuberculosis—which constitutes, in fact, the true tubercle virus." This statement is one of the most remarkable, in its import, in the history of medicine.

Koch reached this position by the results obtained from experiments made with the tubercle-bacilli which he had artificially cultivated. He prepared a nutritive substance, and introduced into it a speck of pus taken from a tuberculous human lung. In this way he obtained a number of bacilli, with which he infected fresh material, and by frequent repetition of this process, which

*Quoted by Thomas Young, M. D. Loc. cit.

†"Morbid Anatomy," London, 1793.

‡"Recherches sur la Phthisis." Paris, 1810, p. 66. Quoted by Dr. Young. Loc. cit., p. 452.

*Die Etiologie der Tuberculose. Berliner Klin. Wochenschrift, 1882, No. 15.

he carried on for many months, he succeeded in obtaining bacilli very many generations removed from those taken from the diseased lung. These cultivated bacilli were introduced into the circulation of healthy animals, and in every instance induced tuberculosis. Tubercles in large numbers were found in the lungs, liver, and spleen of all animals thus experimented upon.

The labors of the illustrious Pasteur, of France, and of Koch, of Germany, are now well known to us all. They are the leaders of a host of equally zealous investigators who have acquired more or less distinction through their efforts in this direction.

Villemin,* Buhl,† Bollinger,‡ Fraentzel,‖ Balmer,§ Ruhle, of Bonn,¶ Lichtheim,** the late Prof. Cohnheim,†† Gaffky,‡‡ Ewald,‖‖ Ehrlich,§§ Kowalski,¶¶ Wilson Fox,*** Cheyne,††† Shakespeare,‡‡‡ Sternberg,‖‖‖ Ernst,§§§ Colin,¶¶¶ Tappeiner,**** Williams,†††† and others, who form a legion of self-sacrificing, earnest, and conscientious workers, banded together in the interests of science and of their fellow-men, and inspired by the hope of being able at some future day to stay the progress of a malady which has been the occasion of more deaths than all the epidemics of disease, and all the disasters by land and sea, not only command the attention and support of the scientific world, but also the gratitude of every intelligent human being.

With a rapid but steady pace those observers are advancing on the road which will soon lead to the desired goal. The clouds of error are being dissipated by newly-discovered truths, and to-day the subject of tubercular phthisis is better understood than ever before. It is my purpose this evening to bring to the notice of the Fellows of the College some facts by which, I think, the contagiousness of tuberculosis is clearly demonstrated.

Careful researches by De Quatrefages,* Cook,† Livingston,‡ Rush,‖ Budd,§ and others, seem to prove that tuberculosis first appeared among the inhabitants of Europe, and gradually manifested itself in those parts of the world with which they had intercourse. If this is true, it is one of the best evidences of the contagiousness of phthisis. A contagious or infectious disease can have but one cause, and this is eminently true of tuberculosis, which does not arise from a variety of causes, but is solely due to the tubercle bacillus. Wherever this bacillus finds its proper nidus, it will there develop and multiply; and if this should be in living animals or human beings, the progress of the disease will be determined by the character and amount of food offered for the growth of this germ; thus with a nidus rich and plentiful we may have a case of acute phthisis lasting not more than thirteen days;¶ and, on the other hand, if the pabulum is poor and scant, the case may be a chronic one extending over a period of twenty-five years, such a case having occurred in my own practice.

The bacilli may enter the system through the lungs or by the stomach. The air we breathe, as well as the food we take, especially in the vicinity of the phthisical, may be laden with these germs. The air of the ventilating flues at the Brompton Hospital, when carefully examined, was found to contain tubercle bacilli in fair abundance.** The sputa of tuberculous patients drying upon our streets is ground into an impalpable powder by the feet of pedestrians, and is then disseminated through the air, to be inhaled alike by the healthy as well as those predisposed to tuberculosis. Such sputa, mixed with the dirt of the street, have been collected, dried, and powdered again, at fre-

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* Gazette Med. de Paris, December, 1865. Also "Etudes la Tuberculose," Paris, 1868.

† Lungenentzundung, Tuberculose und Schwindsucht, 1873.

‡ Archiv f. Experim. Pathologie, Bd. 1, 1873. Also N. Y. Med. Record, March, 1884.

‖ Berliner Klin. Wochenschrift, 1882, No. 45.

§ Ibid.

¶ Medical Record, New York, May, 1883.

** Ibid.

†† "Consumption as a Contagious Disease," London, 1880. Translation by H. D. Cullimore.

‡‡ Report of the Imperial Health Office, Berlin, 1884. See Review of Amer. Jour. of the Med. Sci., July, 1884.

‖‖ Med. News, Phila., September 6, 1884, p. 275.

§§ Deutsche Med. Wochenschrift, No 19, 1882

¶¶ Wiener Medicinische Presse, February 24, 1883.

*** Med. Times and Gazette, London, 1883, vol. ii., p. 672.

††† Practitioner, London, 1883, vol. xxx.

‡‡‡ Proceedings of the Phila. Co. Med. Society, 1884, pp. 315, 320.

‖‖‖ Medical Record, New York, October, 1884.

§§§ Amer. Jour. of the Med. Sci., October, 1884.

¶¶¶ Med. Centralblatt, 1873, No. 30.

**** Virchow's Archiv., Bd. 82, 1880.

†††† The Lancet, London, February 24, and July 28, 1883.

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* The Human Species, by A. De Quatrefages, N. Y., 1883; pp. 428, 430.

† Ibid.

‡ Ibid.

‖ Medical Inquiries and Observations. Phila., 1789, p. 137.

§ The Lancet. London, 1867. Vol. ii., pp. 451, 452.

¶ Medical Diagnosis, by J. M. Da Costa, M. D., LL.D. 6th Ed. Phila., 1884, p. 320.

** The Lancet. London, July 28, 1883.

quent intervals during a period of several months. Guinea-pigs were then inoculated with this matter, and in a short time the animals thus treated died from tuberculosis.*

To admit that the tubercle-bacillus is a pathological product, is to express a belief in spontaneous generation,† and I feel sure that none of my enlightened hearers are prepared to subscribe to that doctrine.

It is asserted, by some pathologists, that other matter or irritant than the tubercle-bacillus is capable of producing the disease. This idea is not a new one, for Richard Morton says: "Chalky stones that are preternaturally bred in the lungs; or nails and other hard bodies slipping down into the lungs when persons laugh, are to be recorded among the causes of a consumption of the lungs;"‡ and he narrates a case, p. 247.

It is also claimed by a number of writers that certain callings or occupations may be a cause of tuberculosis, owing to fine particles of dust inhaled by those employed. Thus coal miners, dry grinders, stone-cutters, moulders, operatives in cotton and woolen mills, etc., are apt to have the disease. But those who believed that the dust breathed by individuals engaged in these occupations might occasion phthisis were evidently oblivious of the fact that the air carried, in the form of germs, is a far more potent factor; and that while the dust may have produced an irritation of the air-passages, the presence of the tubercle-bacilli was essential to the production of the disease. The inhalation of irritants, or lowered vitality, occasioned by certain occupations, may cause the predisposition, but they are never the cause of the disease *per se*.

Not all the predisposing causes united could in any instance induce tuberculosis without the advent of the tubercle-bacillus. That something more is needed was admitted by Pollock twenty years ago, when he declared that there must be "some subtle agent to precipitate, concentrate, and shape these elements of disease into tubercle."‖ And Da Costa says, "Whatever it be, it is something special."§

Experiments have demonstrated, beyond doubt, that it is impossible to induce true tuberculosis in any case where proper precautions have been taken to remove from the irritant used all living germs. This is now accepted as a fact by many of those who once held a contrary opinion. Wilson Fox, Cheyne, Sternberg, and others, who performed these experiments under the conditions mentioned, have acknowledged that under such circumstances it was impossible to produce the disease.

Objections are also made to the fact that these bacilli are the cause of tubercle, because they were not found in all cases of tuberculosis examined by certain investigators. It is fair to presume that in these instances they must have escaped detection, since bacilli have been found in every case of tuberculosis examined by careful observers.

Many instances are recorded where foreign bodies have been carried into the lungs by gunshot wounds or otherwise, without occasioning much disturbance in the parts or seriously affecting the health.

Rush,* with his experience of the Revolutionary war, declared that he had never known a case of phthisis to result from wounds in the lungs; and this observation was supported by the Surgeon-General of the Royal Army.

A number of cases of gunshot wounds of the lungs occurred during the late war, but, as far as known, they were not the occasion of any death by phthisis.†

I am free to admit that, in cases where a predisposition exists, it may be still further developed by the presence of an irritant, just as a furuncle in one individual may be harmless, and in another the starting point of a cancer. The late General Baxter,‡ of this city, received a wound in the lungs on the 6th of May, 1864, and was more or less actively engaged in his duties until twelve years afterwards, when, during a fit of coughing, he ejected what appeared to be a hardened bit of pus. This, upon examination, proved to be the envelope of a small piece of coarse, red cloth, half an inch in diameter (such as is used for the stiffening and padding of coats), which had been carried into his lungs at the time he received the wound

* Med. and Surg. Reporter. Phila., 1884, vol. i., p. 697.

† Floating-matter of the Air. By John Tyndall, M. D. New York, 1882, pp. 277, 320.

‡ Loc. cit., p. 67.

‖ The Elements of Prognosis in Consumption. London, 1865, p. 337.

§ Philadelphia Medical Times, June 19, 1880.

* Medical Inquiries and Observations. Philadelphia, 1805, vol. ii., pp. 72, 73.

† Med. and Surg. Hist. of the War. Second issue, 1875, Part 1, Surg. Vol., p. 478, 481.

‡ The Daily Evening Telegraph, Phila., May 10, 1881.

[Note.—That the excretion of these bacilli might prove to be the *materies morbi*, was suggested by me some time ago; and this opinion is also entertained by Dr. G. M. Sternberg, U. S. A., who subsequently made the same suggestion in the *Med. Record*, N. Y., October 25, 1884.]

in 1864. During all this interval there had been a constant suppuration of the lungs, occasioning considerable discomfort, but not sufficient to render him unable to fill several important positions demanding his careful attention. Three years after expelling the foreign body (seventeen years from the time he received the wound) he died, it is said, from phthisis. In this instance, admitting that he died from phthisis, a predisposition to the disease was evidently established by a greatly lowered vitality, occasioned by the long-continued suppuration. For twelve years he lived without a sign of phthisis; but after he had rid his lungs of the original irritant, the bacillus tuberculosis found its way to the rich soil so long prepared for its reception, and there multiplied until the life of the individual was ended.

So certain diseases, occasioning an irritation or a lowered vitality of pulmonary mucous membrane, have the reputation of being the indirect causes of tuberculosis. Measles, especially when occurring in children of phthisical parents, are liable to have consumption as a sequel. The mucous membranes are implicated in this disease, probably more so than in any of the eruptive fevers; the epithelium is cast off, and the denuded membrane exposed to the direct contact of the tubercle-bacillus.

It has been satisfactorily demonstrated that tuberculosis may be caused by inoculation in the human subject. Laennec, whilst examining a vertebra containing tubercle, slightly wounded one of his fingers with the saw-blade. In the site of this wound, a small rounded tumor subsequently appeared, which, upon investigation, exhibited all the physical characters of tubercle. It was destroyed by the application of an escharotic, and no bad effects resulted from it.*

Another instance was that of a fisherman free from tuberculosis, but suffering from gangrene of the toe, who was purposely inoculated. Thirty-seven days after the experiment he died, and the autopsy revealed a tuberculous deposit in the lungs and liver.†

But the most satisfactory evidence of the effects of inoculation of tubercle is that presented in the case recorded by Dr. E. A. Tscherning.‡ The subject, employed as cook in the family of Prof. H., was a perfectly healthy woman, about twenty-four years of age, with a history unexceptionally free from any hereditary taint of scrofulous or tuberculous affections. After a short illness, the professor died of phthisis. The cook unfortunately broke the glass sputum-cup used by her employer, and a spicula from it punctured one of her fingers. Fourteen days afterward there appeared at this point what seemed to be a felon. This was treated at Prof. Studgaard's clinic, and at the end of a few weeks the finger was much better; a little nodule, however, about half as large as a pea, was found to exist in the subcutaneous connective tissue, which after awhile became tender and œdematous. This was now cut out, and the wound healed readily. About three months from the time of the accident, Prof. Studgaard found that the sheath of the tendon was thickened, and two cubital and two axillary glands were enlarged. He disarticulated the middle finger, and the tendon, with the thickened sheath, as well as the enlarged glands at elbow and axilla, were dissected away. Upon examination, the sheath of the tendon was found to be filled with pale granulations. Sections of the sheath and of the extirpated glands were subsequently subjected to microscopic investigation, and numerous tubercle bacilli found in them, which positively established the peculiar character of the affection.

Dr. Tscherning has observed upwards of thirty cases of localized tuberculosis, and in each instance the microscopical appearances were the same as in this case.

Many eminent men, by their constant attendance upon the phthisical and by their close and frequent study of the post-mortem conditions of their cases, have been made victims of the disease themselves. Among those who have met death in this way may be mentioned Bayle, Laennec, Delaburg, Dance, Young-Thomas; and many other names could be added.

Much stress has been laid upon heredity as being one of the chief causes of the vast mortality from this disease. It is my belief that phthisis is never transmitted from parent to child; it is simply a predisposition that is inherited. By predisposition, I mean a greatly lessened power of resistance in the tissues, especially in the lymphatic system. If tuberculosis was inherited, we might expect to find some indications of this in the fœtus; but the observations of Guizot,* Gluge,† Heller,‡ and Virchow,‖ have shown that

*Diseases of the Chest. Translated by J. Forbes, M. D. London, 1834, p. 305.

†Gazette Méd., 1872, p. 192. Quoted in Biennial Retrospect of Med. and Surg., 1871–72, p. 38.

‡Hospitals-Tidende, Copenhagen, Dec. 17, 1884.

*Quoted by Dr. Durant. Trans. of the N. Y. State Med Soc., 1878, p. 174.

†Ibid.

‡Med. News, Phila., 1884, p. 302.

‖Ibid.

this is not the case. In 1300 fœtuses examined by Heller, there was no evidence of a tuberculous taint in any one of them, notwithstanding the fact that in one instance the patient died of phthisis with the fœtus in utero. Virchow, with his experience of more than fifty years, says: "He had not seen a single case of direct transfer in the fœtus." This also holds true in regard to the offspring of animals which have been under observation while suffering from tuberculosis; there is no instance on record in which they have exhibited a trace of the disease.*

The presence of the disease in infants is undoubtedly due to the bacillus, or its spores, contained in the milk of the phthisical mother, or in the air it is constantly obliged to breathe.† In other words, the disease is not transmitted, but it is acquired. I have elsewhere shown the fallacy of the hereditary transmission of the disease.‡

There are but few insurance companies that will accept as a risk any one whose family history is not clear of tuberculosis; hence, it would seem that such careful exclusion would remove all questions of hereditary transmission in those losses which they may sustain by deaths from phthisis. One of the most conscientious companies in this respect is the Mutual Life Insurance Company of New York. It is especially careful in excluding such risks, and will not only refuse to accept an applicant who has a phthisical history, howsoever remote, but will not regard an application in which there is the least evidence of a predisposition to the disease, no matter what the age of the applicant may be. Notwithstanding the exercise of an unusual amount of vigilance, they are nevertheless obliged to declare that "consumption has been the occasion of more deaths than any other disease, giving a percentage of $17\frac{61}{100}$ of the total mortality; while deaths recorded under other headings, but properly belonging to this, would swell the number to twenty per cent."* Here, then, is a freedom from a hereditary taint as far as rigid examinations are capable of determining it. Under such circumstances the rate of mortality is surprising, to those, at least, who have faith in the hereditary transmission of the disease. A few years previous to that in which this report was made, the death-rate from consumption in the adult male population of New York city was $30\frac{17}{100}$ per cent. This is but little over thirteen per cent. of the deaths among those who were considered especially exempt from the disease.

It would be impossible to enumerate the so-called causes of tuberculosis. The disease has been attributed to every imaginable influence which could occasion a morbid condition of the system. This error is readily accounted for when it is understood that any influence which will bring about a lowered vitality of the body will induce a predisposition to the disease, which is established by the presence of the bacillus tuberculosis.

Age.—In looking over "health reports" and other statistics, I have been surprised at finding records relating to the time of life when tuberculosis is most prevalent, which are entirely at variance with the ideas entertained by many practitioners. It is very generally believed that at the age of puberty, especially in those supposed to possess hereditary taint, phthisis is most apt to manifest itself, and that the liability to contract the disease is lessened with advancing years. It seems, however, that this is not the case, for in early childhood and at puberty the mortality is less than at any other period of life. There is reason to believe that the best way to determine the time of life at which the disease is most fatal is to compare the death-rate occasioned by it at certain periods of life with the number of living persons at the same age. This has been done by several reliable persons, including Dr. Edgar Holden,† and I will read to you an interesting table prepared by A. Wuerzberg, the librarian of the Imperial Health Office, at Berlin, Prussia.‡ This table is as follows:

Of 10,000	individuals	aged	0– 1	year	there die annually of	consumption $25\frac{45}{100}$
"	"	"	1– 2	"	" "	$20\frac{41}{100}$
"	"	"	5–10	"	" "	$4\frac{66}{100}$
"	"	"	15–20	"	" "	$18\frac{37}{100}$
"	"	"	20–25	"	" "	$30\frac{24}{100}$
"	"	"	25–30	"	" "	$36\frac{78}{100}$
"	"	"	30–40	"	" "	$41\frac{12}{100}$
"	"	"	50–60	"	" "	$67\frac{94}{100}$
"	"	"	60–70	"	" "	$93\frac{18}{100}$
"	"	"	70–80	"	" "	$61\frac{72}{100}$
"	"		over 80	"	" "	$25\frac{80}{100}$

*Practitioner, London, Vol. xxx., 1883, p. 318.

†British Med. Jour., 1879, vol. xi., p. 619.

‡"Reasons for Believing in the Contagiousness of Phthisis." Read before the Philadelphia County Medical Society, une 11, 1884.

*Preliminary Report of the Mortality Experience of the Mutual Life Insurance Company of New York. New York, 1875, p. 12.

†The Medical Record, New York, July 12, 1884.

‡Amer. Journ. of the Med. Sci., July, 1884, p. 192.

This table goes to show that at the two extremes of life, where vitality is at the lowest, thus lessening the power of resistance, the disease is most fatal.

It must not be forgotten that among the many causes which lead to a predisposition to tuberculosis, conditions of mental depression play an active part. Bad habits or immoral conduct, which lead to bitter regrets; or domestic infelicity, occasioning long-continued fret and worry, will produce a depression of this character more or less marked. A case recently came under my notice in which the patient's health was first affected by the unfortunate condition of his domestic affairs; they were the occasion of continued anxiety and worriment for several years, and finally brought him into a condition of nervous exhaustion. This was soon followed by the signs of phthisis, and he died about six months afterwards. In this case the predisposition was certainly due to a lowered vitality, induced by long-continued mental depression, aided somewhat by the patient's occupation, which was that of a book-keeper. There was no hereditary tendency to the disease, and had he been more fortunate in his domestic relations, he might still be living.

The following interesting cases, which I have personally investigated, will go to support some of the assertions I have made in my paper:—

Case 1. J. E., an invalid, was married; twelve months afterwards his wife gave birth to a child, and in the following month the father died of phthisis. At the age of five months the child died of marasmus, and in sixteen months after her accouchement the wife died of phthisis. She was of a healthy and long-lived family, but had occupied the same room with her husband during his illness.

Case 2. S. Y., was a healthy young man who married a lady that was physically below par. About a year after marriage she gave birth to a child, and from this period onward she declined in health and ultimately died of phthisis five years afterwards. Eighteen months prior to her death her husband exhibited symptoms of tubercular laryngitis, and died of consumption four weeks before his wife. In this case I ascertained that the wife had come from a tuberculous family (her parents and five sisters having died from the disease), while in the husband's family there was not a trace of tuberculosis, his parents living far beyond the allotted three score and ten, and his brothers and sisters in the full enjoyment of health. This gentleman, who was greatly devoted to his wife, had been constant in his attendance upon her, and had slept in the same room.

Case 3. I. R., a young man aged twenty-seven years, of very temperate and regular habits, who presented no family history of tuberculosis, and whose constitution and general health were excellent, married a young lady of delicate health, in whose family consumption had caused the death of father, mother, and three sisters. The occupation of the young man was that of ticket agent in a railroad office. About three and a half years after his marriage he became ill, and a year after the commencement of his illness, died of phthisis. Two years and a half subsequent to his death, his wife died of the same disease.

In the first case narrated to you the healthy, robust bride certainly contracted the disease from her husband. In the second case the young man, with an excellent family history and in good health at the time of his marriage, not only contracted the disease from his phthisical wife, but died of it four weeks before she did. In the third case we have a healthy and vigorous young man, with an excellent family history, marrying a phthisical girl from a phthisical family, and what is the result? Through his close companionship with his consumptive wife he contracts the disease, which occasions his death two and a half years before his wife succumbs to the malady.

I might add to this list a number of similar cases, were it necessary to do so, for I have the notes of many which prove conclusively the contagiousness of phthisis. Indeed, any one can lay his hands upon recorded cases without number which would convert even the most skeptical to this belief.

No one, not even the non-contagionists, can declare that the cases I have narrated are simply "coincidences." The experience of medical men, especially of those who are engaged in the treatment of lung disorders, must be similar to my own, and I cannot see how there can be a question in their minds in regard to the contagiousness of phthisis.

If the most convincing proof of the truth of a comprehensive theory lies in its power of absorbing and finding a place for new facts, and its capability of interpreting phenomena which had previously been looked upon as unaccountable anomalies,* then I know of no theory more truthful than the one which I have advocated before you this evening. It will fully explain every

*Contributions to the Theory of Natural Selection. By A. R. Wallace. London, 1870, p. 45.

phenomenon connected with this malady, the universal mortality it occasions in every part of the world, and why one member of a family after another, with no hereditary predisposition, has succumbed to its power.

It is a singular fact that in all the recorded cases where the disease has been occasioned by close association with the phthisical, as in nursing, it has been unusually rapid in its course, frequently carrying off those unfortunates during the lifetime of those from whom the disease was contracted.

And what does all this teach us? Simply this, that our real strength in battling with this terrible disorder lies not so much in medication as in the application of hygienic and sanitary laws.

Surgeon-General Von Lauer, of the Royal Prussian War Department, in a letter dated October 16, 1884, kindly enclosed to me a copy of the instructions which he issued in regard to diseases of the lungs. They are of such importance that I quote them in full. It is also of interest to know that in Austria, where the bacillary origin of tuberculosis met with greater opposition than anywhere else in Europe, the Government has recognized its infectious nature, and has issued official instructions similar to these of Surgeon-General Von Lauer. The same precautionary measures should be adopted in the hospitals of our own country, and it is fair to assume that this will be done.

(*To be continued.*)

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE CENTRAL DISPENSARY, WASHINGTON.

BY SWAN M. BURNETT, M. D.

Director of the Ophthalmic and Aural Clinic at the Dispensary: Ophthalmic and Aural Surgeon to the Garfield Memorial Hospital, and Prof. of Clinical Ophthalmology and Otology in the University of Georgetown.

(Reported for the MEDICAL AND SURGICAL REPORTER.)

GENTLEMEN: If the importance of a disease is to be measured by the frequency with which it is encountered, the class of cases we shall show you this afternoon should interest you greatly. Diseases of the conjunctiva and cornea constitute one-half or more of the cases which come under observation at our service at this dispensary. Out of 2800 entries in our last record-book we find about 800 cases each of the various troubles of the cornea and conjunctiva. This is true to a greater or less degree of all free clinics, for such affections are the constant attendants on the bad hygienic conditions of the class from which our charity patients are drawn. In private practice such diseases form a comparatively small percentage of the cases presenting themselves for treatment. These anomalies of refraction and accommodation form the large and important part of the work to be done. Still, even in private practice, inflammations of the cornea are, unfortunately, by no means the exception, particularly in children; for the two great causes of such inflammation—scrofula and syphilis, are not confined in their ravages to the lower ranks of life.

In the classification of diseases of the eye, we follow, as a rule, the anatomical method, as being at the same time the most natural and for many purposes the most practical. To this rule, however, there are many important exceptions, and we have a nomenclature based on pathological products and on the supposed etiology of the disease. But even in the latter case an accurate knowledge of the anatomy of the parts is of most essential service, not only for a clear understanding of the nature of the disease, but also for its rational and successful treatment.

As an introduction, therefore, to a study of these cases, we shall briefly consider the more important points in the anatomy of the cornea.

The cornea being one of the refracting media of the eye is a transparent substance, and as one of the results of inflammation of its tissue is to make it more or less opaque, the necessity of combating such morbid processes actively is at once apparent. It forms the anterior one-fifth of the globe, and is simply the section of a smaller sphere set on to a larger one.

We can very naturally and properly divide the cornea into five layers—a division which is not only authorized by histological examination, but also by the pathological states that are met with. These layers are, going from without inward: 1. The *epithelium*. 2. *Bowman's membrane*. 3. The *substance proper of the cornea*. 4. The *membrane of Descemet*. 5. The *endothelial layer of cells*.

The *epithelium* is continuous with that of the conjunctiva bulbi, and is formed of layers of epithelial cells lying on the membrane of Bowman.

The membrane of Bowman—or the *anterior elastic lamina*, as he called it—is a clearly-defined thin structureless layer. Next comes the *corneal tissue proper*, which is not composed of layers as is commonly supposed, but of fibres which interlace in all directions, and of the corneal cells. Then comes the *posterior elastic lamina*, or *membrane of Descemet*, from the one who first described it, and on this the *layer of endothelial cells*, which is continuous with the cell-layer covering the anterior surface of the iris.

Before going on to the study of the inflammation which affects these parts, it will greatly facilitate our comprehension of the nature and course of these morbid processes if we look for a moment to the embryology or growth and development of the cornea. It is well, occasionally, to cease our study of the more minute anatomy of an organ, and regard it no longer as composed of separate and distinct parts without any other relation to each other than a mere contiguity of tissue, but as a whole, composed of a greater number of individual members having the closest relation in their development and growth, and with, in many instances, a common origin.

In the case of the cornea there is an eminent practical advantage, as we shall see, and the greatness of the view does not rest wholly on the deductive generalization of the embryologist.

The epithelium of the conjunctiva and cornea are the same; under the microscope we see it pass over unchanged from the conjunctiva to the corneal surface. The conjunctiva proper seems to stop at the edge of the cornea, but just where it ends the membrane of Bowman begins, and it seems a legitimate supposition that the anterior elastic lamina is but a continuation of the conjunctiva, which has become transparent. In a carefully-prepared preparation of the anterior part of the eye ball it is impossible, under the microscope, to tell where the sclerotic ends and the cornea begins, so similar are the two structures in their appearance. Applying the same idea to the membrane of Descemet, it would seem that the post-elastic lamina and the endothelial layer were simply metamorphosed continuations of the uveal tract. We know, as a fact, that the endo-thelial layer of cells is continuous with the layer of cells covering the anterior surface of the iris; and it would require no great stretch of the imagination to look upon the structureless membrane of Descemet as a condensed and transparent choroidal stroma. But, as we have said, we have not only an embryological and developmental authority for such a view of the origin of the different layers of the cornea, but it receives very strong support, indeed, from pathological changes. It is true, we have inflammations which are limited in their origin and course to the cornea itself; but there are others which are not thus independent, and which they have in common with inflammation of their, continuous layers in the globe of the eye. Thus we seldom have inflammations affecting the post-elastic lamina and its cell covering in inflammations affecting the other layers of the cornea. At one time such was the belief, and the names of "punctate keratitis," "descemitis," "pyramidal keratitis," all looking to its purely corneal origin, were given to it. But later investigations show that these peculiar pathological changes are always associated with a low grade of inflammation, generally serous in character, of the iris or other parts of the uveal tract. We find them, in other words, associated with "serous iritis," though they are not always absent in the plastic form of that disease. Some of you may remember that we gave consideration to this affection in the clinical lecture on iritis. We will speak of the affections of the anterior layer in association with conjunctival inflammation later.

Being perfectly transparent, of course the cornea can have no blood-vessels of its own, and as a consequence it must obtain its supply of nutrition from the parts lying around its base. There are those of the conjunctiva, sclera, and ciliary body. This peculiarity in its method of nutrition plays an important part in its pathology. Under the circumstances, we should not expect its power of resistance to be very great; and when there is a general failure of nutrition, we should look to find the results of it to manifest themselves here about the first. Corneal affections appear by preference among the badly-fed and ill-nourished.

The *classifications* of keratitis have been numerous, and by no means uncomplicated, but in general they have followed one of three methods, viz., the *anatomical*, the *pathological*, or the *etiological*, and some have combined two of the three. No one of the methods is entirely satisfactory from a practical standpoint, though each is possessed of advantages which the others lack, and we shall find it profitable sometimes to use the one and sometimes the other.

The general *anatomical* division is into *superficial* and profound, or *parenchymatous*. This has the advantage of indefiniteness as well as comprehensiveness, but as there are inflammations which are at the same time superficial and profound, this want of exactness is a serious obstacle in the way of its exclusive acceptance. Again, the inflammation may be *circumscribed*, or rather the products of the pathological change may be limited with greater or less distinctness, or it may be *diffuse*, and affect the cornea in its entirety. The change in nutrition may be such as to cause a destruction of the tissue and result in an *ulceration*, and this ulcerative process may remain confined to the locality first affected, or it may *creep* along the tissue from place to place, like a serpent, and sometimes when the nutritive supply is cut off by the pressure of the teusely swollen conjunctiva, as in the case of gonorrhœal conjunctivitis we showed you two weeks ago, the corneal tissue becomes necrosed, and sloughs off as a whole. When the destruction of the cornea is less than this, and affects the whole thickness of the tissue, it is called *perforation*, and the size of this may vary from a pin's point to half or more of the corneal surface. Associated with this there is always in large perforations a prolapse of the iris.

The remaining method of classification is the *etiological*, and while usually less absolute in its character, is, on the whole, the most important from the standpoint of therapeutics. Aside from traumatism, the causes of keratitis are, almost without exception, some form of mal-nutrition, and the principal agents bringing about this condition in modern life are *struma* or *scrofula*, and *syphilis*.

I have not the time to enter into a discussion of the question as to what it is that constitutes *scrofula;* nor is it necessary for our purpose. It is sufficient for us to know, that associated with it there is a lowered assimilative action, and that therefrom results an insufficient nutrition of the cornea. While the cornea may be affected from these causes in any of its parts (though rarely, if ever, in its posterior portion), the mucous layers are the ones which usually receive the force of the morbid action, and it is most commonly associated with a deranged function and pathological change of the mucous membrane of the upper air passages. In the large majority of cases, too, it is made manifest under a particular form, which has been recognized by clinicians for a long time under the name of *scrofulous*, or *phlyctenular*, or *pustular keratitis*, several examples of which I here show you. In this form we have the morbid action limited entirely to the epithelial layer, which, as we have seen, is continuous with that of the conjunctiva, forming a conjunctival layer of the cornea. From the fact that it is associated, with

rare exceptions, with the scrofulous habit, and the pustules occur indifferently or concomitantly on the conjunctiva, or the conjunctival layer of the cornea, Arlt has given the name of *scrofulous conjuncitivitis* to these forms, whether manifest on the conjunctiva or cornea. They appear as a small, round elevation of the epithelium, surrounded with vessels usually, which run as a small band to the limbus and into the conjunctiva. There may be more than one of these small vesicles, and they may be found on any part of the corneal surface.

But while this is the most usual form of keratitis attendant upon scrofula, particularly in children, we find not infrequently a deeper pathological change, and I am inclined to think that these profound keratides as associates of scrofula are more frequent in the negro than in the white race. At least we see here in this clinic a great many eyes in negroes in which the cornea is scarred over from successive attacks of deep but circumscribed keratitis.

The next most potent factor in the production of keratitis, is *syphilis*, and it usually shows itself under a special form—the *parenchymatous*—and as a rule is a manifestation of the hereditary congenital form of the disease.

Acquired syphilis does not attack the cornea. Its virulence is expended most commonly on some part of the uveal tract, the iris in particular. We are indebted to Jonathan Hutchinson for a careful study of this form of disease, and most practitioners in America agree as to the correctness of his accurate observations. At least, we always look for the "notched teeth," which are well known by his name, and when they are present we feel assured that we are dealing with inherited syphilis.

Most of you will remember this little white girl, now 13 years of age, who attended our service with such regularity during the spring and summer. To look at her eyes now, you would scarcely believe that at one time both her corneæ were so thickly covered with vessels that they looked like raw beef. Yet some of you must remember how for months they remained in that condition without any signs of change. If you look at her incisor teeth, you will see that they are notched, and have all the peculiarities described by Mr. Hutchinson. There is never any tendency in this variety of keratitis to destruction of tissue, and as a consequence, when the morbid process subsides, the cornea may regain a perfect transparency. It is only when the corneal tissue is destroyed, and its place filled by cicatricial tissue, or when there is formation of new tissue in its substance, that an opacity results. The true transparent corneal substance when once destroyed is seldom reproduced.

The *subjective* symptoms of keratitis are well marked and distinctive as a rule. There is pain, lachrymation, and photophobia. Yet there are severe cases of keratitis, in which one or more of these symptoms may be absent, nor are their intensities proportional always to the severity of the inflammation. Sometimes a small phlyctenula which happens to cause pressure on a terminal filament of a nerve, will give rise to more pain and lachrymation than an inflammation which threatens the integrity of the whole cornea. I shall not enter into a detailed study of the various forms of keratitis mentioned, for each case should be studied on its own merits, and all you can hope to learn from books or lectures are the general principles which underlie the pathology and etiology of the disease, and make an application of these to the patient in hand.

Treatment.—This must be *general* and *local*. The general treatment will depend upon the condition of the patient, and will consist generally of measures calculated to restore the nutritive powers to their proper condition; and without this general building up of the system your local means will, as a rule, be of only temporary benefit. Cod-liver oil, iodide of iron, and sometimes quinia, are the drugs we rely most on, but good feeding is better than all. Plenty of milk and beef, with an abstinence from all sweet pastries, and as much open air exercise as the patient can stand, are worth all the drugs in the dispensary. In the syphilitic cases, of course, we use mercury and iodine. For local application, we know of nothing better, on the whole, than atropine. Eserine has its champions—and in some cases undoubtedly does good—but its general usefulness is not equal to belladonna. In young children, where there is difficulty in putting the drops in the eye, an ointment of equal parts of extract of belladonna and blue mercurial ointment, rubbed on the brows and lids, will have a good effect. When the inflammation has subsided, and nature is taking up the effused material, she can be aided a good deal by the local use of mercury. The best form in which this can be used is in an ointment composed of hydrg. oxid. flav., gr. i., cosmoline, ʒij., to be mixed thoroughly, and a small quantity placed under the upper lid once a day, and gently rubbed over the eye by means of the lid. I am inclined to believe, too, that this massage with the lid is of value in hastening the absorption. Hot applications are often invaluable for the relief of pain. The most convenient form of this is the flannel bag filled with hops, which is dipped into water as hot as it can be borne, and when the superfluous water is squeezed out, laid on the eye, and changed when it gets cold.

In young children there is often a spasm of the lids, due to the intense photophobia, which renders an examination difficult or impossible. For the relaxation of this spasm, which will have, in addition, a curative effect on the disease, nothing is so good as immersing the face in a basin of cold water and holding it there for a few seconds. It looks cruel, but it's the kindest thing you can do for the little sufferer; for as soon as it has recovered its breath and from its fright, it will look round with open eyes as it has not perhaps for weeks.

Finely-powdered iodoform dusted into the eye has been of late used quite extensively in some forms of corneal ulceration. I have no doubt of its great virtue. This colored boy was admitted with a large perforation in the lower part of the left cornea, with a prolapsus irides, which necessitated an iridectomy, and a beginning ulcer at a corresponding site on the right cornea. We began the dusting of iodoform twice a day, with rest and good nourishment, with the result of saving it from the fate of the left. In some forms of the serpent ulcer, however, nothing short of cutting

it through with a knife, as recommended by Sämosch, will stop its progress.

This operation can now be undertaken with greater confidence, since the introduction of the local use of muriate of cocaine. A drop of a four per cent. solution being dropped into the eye, the cornea and conjunctiva are rendered insensible in from three to five minutes, and the incision can be made without any pain to the patient. Under the influence of the same remedy, an ulcer can be scraped and cleaned of the necrosed tissue, which undoubtedly adds an infecting element to the disease, and the iodoform applied directly to the diseased tissue ; or the ulcer can be touched by the actual cautery, a method of treatment now likely to come into more extensive trial under this new blessing of local anæsthesia.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Some Applications of Electricity in Abdominal Disorders.

Dr. William R. D. Blackwood, M. D., read a paper on this subject, saying :

I was asked by our worthy ex-president, Dr. Welch, a few days ago, to fill an unexpected lack of material for this evening's paper, and have had, in consequence, little time to prepare anything worthy of your notice ; but, always willing to obey orders, I shall refer to one or two points in which electricity will be found useful in visceral disorders, although infrequently thus employed. I do not by any means discredit the use of drugs in any of the affections or conditions to which I shall refer, for well tried and known remedies are always useful, and I prescribe these confidently ; but sometimes we encounter patients who just at that particular time may be averse to taking the special drug we habitually employ, and if a good efficient substitute be applicable, it will relieve the physician and patient alike, and tide us over the temporary difficulty. Persons of a bilious temperament frequently suffer from malaise not amounting to pronounced illness, hardly enough to warrant active treatment in the way of mercurials and salines ; yet they are uncomfortable, and in such cases a mild galvanic current of, say, fifteen volts, will afford relief in almost every instance, and it may be that the necessity for active treatment is averted by recourse to this procedure—a point of satisfaction to such people, for they get very tired of continual drugging. I have a number of patients who never let a probable bilious attack go beyond this stage before seeing me, and they rarely need more than one application. I place the anode over the interscapular region—the cathode over the epigastrium.

It has been the fashion for some time past to neglect, or contradict rather, the result of liver torpidity in producing indigestion, and much very scientific talk and writing has been expended to show that dyspepsia, so-called, is due to stomach and pancreatic laziness alone ; that reputed cholagogues of olden times were inert; but, all the same, many practitioners not quite so learned, but of a practical turn, found that in not a few cases the liver could be jogged enough to relieve their patients, at any rate, whose indigestion thereupon disappeared—which is of some importance to them, though not so interesting to speculative experimenters. It is not always judicious or advisable to employ calomel or podophyllin in rheumatic or extremely anemic subjects, and milder hepatic stimulants won't act promptly enough to suit their need, and here again the constant current is a good substitute. Free bilious evacuations are readily provoked in most persons, particularly in those of sluggish temperament, by passing moderate currents through the liver and the gall-bladder; and as a corrective of the tendency to repeated attacks, this plan works admirably. For many years I was subject to bad bilious derangement, and nothing but mercurials and salines would relieve me, though many medical friends suggested other remedies; yet now I never am thus troubled, although I have made no change in diet, or otherwise. Galvanism applied as suggested, faithfully for a month or so, has cleared up the difficulty, whatever it may have been.

Constipation dependent on loss of muscular tone is well managed by electro-therapeutics. Faradism will tone up the vermicular action of the intestinal tube, if the coil is of heavy wire. The ordinary trade coil of No. 36 calibre has not sufficient penetrating power, but a secondary of from No. 22 to 26 will act well if energized by a good cell and long primary.

Hemorrhoids arising from obstruction of the portal circulation I have repeatedly relieved by galvanization of the liver. I put the anode (stabile) over the solar plexus, the cathode (labile) over the hepatic region, with a current of ten or twelve volts, and a duration of five minutes. Faradization of the tumors, if protruded, will temporarily relieve the pain, and sometimes lessen engorgement. Now and then I have been able to return a mass more or less strangulated by this means, after failing in the ordinary methods.

I have succeeded in reducing a hernia, more than once, which resisted taxis and the ordinary accompaniments, and in which strangulation was apprehended, by faradizing the mass, and, in a severe strangulated case, in which the operator was unavoidably detained beyond the appointed time, a similar method was successful in overcoming the morbid condition, much to his astonishment, and, I am afraid, his dissatisfaction.

In a case, some years ago, in a relative, a suspected invagination of the transverse colon, was, as I believed, due to fecal impaction. Purgatives and enemata were unavailing, and I was asked if electricity would be of service should my diagnosis be the true one. I was not inclined to favor the idea, as the mass was quite hard, but, being urged, we employed faradism ; one pole was applied through a sponge rheopore over the upper border of the colon, the other by an anal rheophore. The process was painful, from the scraping of the moving mass ; but it certainly did progress, and in half an hour the change in position was evident, not only to the patient but to the bystanders. Next day more progress was secured, and in the afternoon the impacted material was

brought within reach of solvents and was removed. The patient plainly and unmistakably felt the onward movement at each closure of the circuit.

I have had satisfactory results from electricity in hemorrhage from the rectum, contraction of the bleeding vessels being secured by an intra-rectal rheophore. In one case both hot and ice water, simple and medicated, were useless; tenesmus was unbearable when a tampon was employed, and no desirable amount of coagulation was reached by many astringent drugs taken per orem. An enema of water containing a little sulphuric acid was given, retained by an anal pad, the rheophore introduced, and as strong a galvanic current applied as the patient could endure, and thus maintained for five minutes. At first expulsive desire was hardly to be resisted, but perseverance was rewarded by control of the hemorrhage, which, though not severe, was, from continuance, a cause for apprehension. In this connection, I may remark that galvano-cautery is not, to my mind, desirable in controlling accessible bleeding points. Although electric incandescence, through resistance and the iron fervid from absorbed caloric, are simple examples of correlation of force, practically the old cautery I hold as preferable, because more manageable and inexpensive, and, moreover, the cicatrix is less likely to be excessive. The galvano-cautery is showy, imposing, and may tickle the fancy of the laity, but its disadvantages are many, even in the hands of experts; whilst the old-fashioned arrangement is just as good, except for the larynx and nasal chamber; that is, admitting the actual cautery of any kind as valuable, which I, for one, do not grant, except in a limited field.

Pruritus ani is very often not alone disagreeable, but stubborn, and galvanism will allay the intolerable itching, though, of course, not permanently—the cause must be looked up and properly treated. Since commencing this page, I was called to see a case of general erythema with atrocious pruritis, and the itching was promptly dismissed by general galvanization. Previous experience in this case has taught me the difficulty of aborting the symptoms by usual remedies, internal or external.

Vulvar pruritus is amenable to the same treatment as that suggested for its next-door neighbor, and nothing in my hands has ever relieved so quickly the wretched burning pains of shingles, as galvanism. These items just noted are not *abdominal* precisely, but they are *abominable*, which is near enough to warrant reference to them.

In chronic low-grade cystitis, where temporary retention is now and then seen, more especially in association with enlarged prostate, a mild faradic current will stimulate the bladder to act, even though the intensity would be much less than would be requisite to secure vesical contraction.

In a case of unilateral hemiplegia lately under my care, in which retention is a troublesome factor, this method is always efficient, and the family can relieve the sufferer at once if necessary. In the opposite condition in children—that of nocturnal incontinence—galvanism is quite useful in cases where the nervous tone is below par. Cannabis indica, ergot, and galvanism, seldom fail me in such cases.

Vigoroux has proposed charging the hospital wards for cholera patients with ozone, through the intervention of the static-electric machine, as a prophylactic and curative measure. I have a man who doesn't feel comfortable unless he has cholera-morbus about eight to twelve times a year, and I have utilized the old gentleman for experiment, because I feel inclined to look upon cholera-infantum, cholera-morbus, and epidemic cholera, as expressions of a common type, under modificatons of time and place. To abort an attack (for he has premonitions) I have encompassed him with as much ozone as could be got up by a static-electric machine, under a tent, somewhat as used in tracheotomy cases, much to his disgust, for the odor is exceedingly disagreeable to him. So far the ozone is valueless, he gets the cramps, the ejections, and the dejections, as of old.

If any of our pathologists will try to strain out the comma-bacillus should it be therein contained (and the micro-germ is found in such excreta, though possibly not precisely similar in growth), I will cheerfully furnish the raw material from this case; and if I can get a few lively bacilli, I would like to see whether our French friend is right in his surmise—which I very much doubt.

Migraine, or sick headache, is nearly related in sedentary persons with bilious attacks, and so, also, is *vertigo*. These disorders are frequently an expression of super-excitability or "nerve-storms," and perturbation of the abdominal sympathetic is controllable by galvanism. I usually place the anode in the auriculo-maxillary fossa, the cathode over the solar plexus. A moderate tension for three to five minutes will clear up the difficulty in about half the cases I have tried this plan in, and I generally give a little bromide of sodium and chloroform afterward, to clinch the result.

In alluding to a few common disorders more or less amenable to electrical treatment, I have purposely omitted reference to their pathology, for two reasons. One is that an estimable patient lately told me that the gentleman under whose care he was, as an electro-therapeutist, before consulting me, told him that Philadelphia possesses two physicians only who know anything of electro-therapeutics, and only one of them had appropriate apparatus for scientific use. As our modest friend, whom we may with reasonable certainty designate as No. 1, is not connected with any hospital or medical school, I am unwilling to arouse any emulation in the half-dozen friends whom I know to be attaches of such institutions, if any of such are with us this evening, either of whom might desire to show himself worthy of being graded No. 2; and although the nervous irritability thus engendered would be positive in expression, the result might be negative should the difference of potential thus established be too great. I am proud to say that my patient is rapidly recovering under the adverse conditions deplored by our distinguished confrere. Besides this reason, the current must be interrupted by the renewal of the irrepressible conflict on the bill for the Board of State Examiners and Licensers, set for 9 p. m., now close at hand.

DISCUSSION ON ELECTRICITY IN ABDOMINAL DISORDERS.

Dr. G. B. Massey: "I entirely coincide with Dr. Blackwood in the bulk of his remarks. It is especially necessary to call the attention of general practitioners and surgeons to the value of electricity in acute cases of invagination and obstruction of the bowels, for the reason that electricity is usually a last resort, and properly so, in many cases of abdominal disease. The faradic current may be of great service in the relief of invagination or obstruction, or even of hernia, but usually is not sufficiently tried before more positive measures are resorted to.

"In regard to the therapeutical portion of the remarks, I think that light might be thrown on the subject by more definitely suggesting what the two currents can do. The physical characters of galvanism and faradism are so different, that doubtless their therapeutic action is totally different. Galvanism as used in medicine is obtained from a low number of volts, one to sixty being the usual number. In abdominal applications of galvanism, the volts would vary from five to twenty or thirty, being in accordance with the number of cells used, if they are of the blue-stone variety, which is equal to one volt. The resulting current, with the human skin as a factor of resistance, gives an ampere strength which varies from five to thirty or forty milli-amperes. The current may be said to be one of low electro-motive force, but of a large number of units of volume.

"The faradic current, on the other hand, usually has from one hundred to several hundred volts of electro-motive force, but the ampere volume is practically *nil*. In this current there is therefore no chemical stimulation of tissue, but a power of shocking nerve and muscle by the sudden development of considerable electro-motive force.

"To carry the difference still further, I may say that the static current, or franklinism, contains from many thousands to millions of volts of electro-motive force, but no volume to speak of. The galvanic current has many units of volume, but no electro-motive force to speak of. In the one case, we have a current of thousandths of an ampere, while in the other we have a current of thousands of volts. The faradic current lies between these two extremes. This difference is an important one. The physiological and therapeutic effects of the two currents differ widely. In the one case, we have merely a shock or stimulation of the nerve or muscle from a sudden application to it of a considerable electro-motive force. In the other case, we have an interstitial change, an added metamorphosis of tissue, due to the chemical action of a current of volume. Where it is desired to stimulate a muscular fibre, as in dilatation of the stomach, or in a tonic constipation, the faradic current would be the one to use. Where we wish to act upon an organ *en masse*, and to set up changes which have been designated for long ages as alterative, we should use the galvanic current.

"I can corroborate what has been said in regard to the action of galvanism on the liver, and I think this action can also be exerted on the glands of the stomach.

"I should like to suggest the possible value of galvanism in the early stages of Bright's disease. As is doubtless well known to you, two Philadelphia physicians, Drs. Da Costa and Longstreth, think they have traced the starting-point of Bright's disease to the renal ganglia, and they suggest that other ganglia of the sympathetic system may also participate in initiating the pathological processes which culminate in the condition known as Bright's disease. It seems to me that if such pathological relations could be established, stimulation of these ganglia by considerable volume of the galvanic current would be of value.

"In conclusion, I would like to remark that the volume of current, especially of the galvanic, is influenced greatly by the size of the electrodes in per-cutaneous applications. As the skin is the hardest portion of the circuit to be overcome, the greater the area of skin under the influence of the pole, the greater the amount of current that can be introduced from the same number of volts. Large electrodes are therefore indicated in the introduction of considerable bulks of current painlessly into abdominal organs."

Dr. Blackwood, in closing the discussion, said: "Many points were omitted, and others briefly touched, because, as stated in the paper, the time was limited. The reference by Dr. Massey to the differential employment of galvanism and faradism, and the use of large rheophores, was important—galvanism being in ninety-five per cent. of all cases indicated; but general practitioners rarely used other than faradism, from the initial high cost of constant batteries of necessary size, the difficulty and expense of maintaining them, and lack of ability to repair injuries to the mechanism without the aid of the manufacturer. Dr. Massey's remark about the number of volts used in abdominal work leads me to refer to the apprehension, which Rockwell and others felt in using currents of fifteen to twenty volts in extra-uterine pregnancy. I have treated two cases successfully, and have run the force up to fifty-nine volts (through a rheostat), before becoming satisfied as to the success of the application in the latest instance. No bad effect, constitutionally, followed this powerful current. The local effect on the skin was severe. Much is yet to be learned regarding treatment of such affections as Bright's disease and disorders dependent on the sympathetic, and I feel that hereafter great good must result from the scientific use of electricity in such cases."

Discussion on Spasmodic Tabes Dorsalis. (*See page* 367.)

Reported by Wm. H. Morrison, M. D.

Dr. Chas. K. Mills: "This subject has long interested me. Dr. Keating has referred to the fact that so long ago as 1879, I reported in the *New York Med. Rec.* several cases of this affection. Undoubtedly, the majority of these cases are due to congenital arrest of development of the general cerebro-spinal motor tract, including in that term not only the tract as used in the ordinary sense, but also the motor areas of the cerebral cortex. It is of the utmost importance to recognize these cases, and separate the two classes which may be met. The functional, curable cases, not dependent upon this peculiar arrest of development of the central nervous system, are uncommon.

"Two, or perhaps three, varieties of the or-

ganic cases are found. In the first place, we have a set of cases in which only one side of the body is affected—spasmodic infantile hemiplegia; secondly, there is a class of cases, paraplegic in character, the legs alone being affected; and, thirdly, cases are met with in which both arms and legs are affected, usually regularly, although sometimes irregularly as regards the manifestations in the different limbs. Since reporting the cases already referred to, I have seen a number of cases of this affection.

"Some have held that the paraplegic cases may be due to lesion of the spine, spinal membrane, or cord. Ross discusses this view. He suggests that these cases may be due to one of two or three lesions occurring at the time of birth. He had noted that in several cases which he had studied, the child had been born feet first, and he suggests that perhaps in some of these cases, dislocation, pachymeningitis, or perhaps hemorrhage in some part of the spinal canal has occurred, with secondary degeneration of the motor tract—in other words, a compression myelitis, with secondary degeneration of the motor tract. I cannot recall a single case in which this relation could be made out. Again, it has been thought that the application of the forceps sets up this trouble. This has not been substantiated. Dr. Sarah J. McNutt (*American Journal of Medical Sciences*, January, 1885), in one of her cases, expressed the opinion, before death, that the condition was due to the application of the forceps at the time of birth. A post-mortem examination, however, showed that this view was not correct. This point in regard to cause is important as bearing on the treatment.

"I have taken these cases of spastic infantile paralysis, and setting aside all theories, have treated them for months. In one case, I carried out attempts at treatment for nearly two years. In that case, which was not one of those reported by me, there was spastic paraplegia and a spastic condition of one arm, with some strabismus and speech defect. I first treated the patient medicinally and with nutrients, in the manner spoken of by Dr. Keating, and then used electricity both in the form of the faradic and of the galvanic current. I also employed nerve-stretching without cutting; after etherizing the patient, forcibly stretched the sciatics, but without effect. I next resorted to persistent training of the patient to stand, handle, talk, etc., and if anything holds out a hope of benefit in these cases, it is this. More, and this was not much, was gained by this measure, than from all other forms of treatment.

"Everything goes to show, I repeat, that most of these cases are due to congenital arrest of development, and therefore nothing very positive can be accomplished by treatment. I do not believe that the affection comes on at the end of eight or ten months, or that it is produced by exposure; I also believe that only rarely is it due to injury at birth.

"A few of these cases have been operated on by surgeons in various ways. Not only has excision of the prepuce been practiced, but tendons, sometimes many tendons, have been cut. Such operations cannot be of much benefit. I, however, do not know that they do harm. and in cases of great deformity they may be of temporary benefit.

"Just as there is what is called a primary lateral sclerosis in adults, so we may have a hysterical spastic paralysis, and it is most difficult to distinguish between the two. We may meet with reflexes, cases in children, of tonic, spastic condition affecting both legs or an arm.

"The congenital arrest is usually marked in the cortical motor area, where the atrophy may be visible to the naked eye. It may affect the ascending parietal, the ascending frontal, and the third frontal convolution. Microscopical changes are present in the layers of the cortex, and all the way down the tracts and out the nerves may degeneration be traced.

"Another practical point is in regard to the use of apparatus. I have seen a little patient literally loaded down with mechanical appliances. In this case, not only was the child unable to move the limbs, but it had to carry the additional weight of the apparatus. I think that, as a rule, although not without exception, and particularly in the extreme cases where children are scarcely able to walk at all, that little is to be gained by the use of apparatus. There may be a few mild cases in which an apparatus may assist the child in performing movements."

[In reply to a question by Dr. R. J. Levis, whether tenotomy of the contracted muscles would not be advisable, to relieve the continuous strain on the extended muscles, Dr. Mills said: "I think myself that some apparent temporary benefit may be derived from division of the tendons, but these patients cannot be permanently or markedly improved by such operations. In the first place there is at the bottom of the trouble a central, organic, nervous defect; a large number of muscles are in the spastic condition, and if these tendons are divided, relieving for the time being the over-stretched muscles, they will re-unite, and probably lead to additional deformities."]

Dr. Sinkler: "I agree with Dr. Mills that there is more than one variety of spastic paralysis in children. As regards prognosis, it is most unfavorable in the congenital cerebro-spinal form. There are, however, cases of purely spinal origin, where recovery takes place. I saw such a case three or four years ago, in a child six years of age. There was a distinct spastic gait, exaggerated reflexes, and, if I remember rightly, both legs and one arm were affected. A couple of years later, I was informed by Dr. Allis, with whom I had seen the case in consultation, that the child had almost entirely recovered.

"Last year I saw another case, very soon after its beginning. A boy, five years of age, was brought to the Infirmary of Nervous Diseases, within a week or ten days after the beginning of the trouble. At the outset, he had some fever and pain. The first symptom noted was stiffening of the legs when the patient was placed on his feet or attempted to walk. He was unable to walk or to stand alone, but the use of the arms was not interfered with. The reflexes were all exaggerated. The nutrition of the muscles was well preserved, and his general health was good. The electro-muscular condition was normal. While under observation—a period of six months—he progressively grew worse. Every measure which suggested itself to me was tried. He had contracted adherent prepuce, which was operated on

without the slightest benefit. Galvanism of the spine, massage, and the internal administration of ergot, bromide of potassium, and conium, had no effect on the muscular spasms. I may here remark that I have found that the measures which have been successfully used to diminish the stiffening, have still further interfered with the ability to walk. When the muscles are relaxed, the patient cannot progress as well as when the muscles are stiff.

"In regard to tenotomy, another objection is that the muscles are, as a rule, in a state of contraction only when the attempt at movement is made. When a patient is at rest, the muscles are relaxed, except in very advanced cases."

Dr. De Forest Willard: "I have seen but two cases of this affection, and therefore feel that I cannot speak from experience. In both these cases my advice was against tenotomy and the use of apparatus. If the contraction of one set of muscles was causing deformity, relief should be given by means of elastic tension, so as to assist the comparatively weak group. If no deformity existed, I think that apparatus would be harmful, since the proper treatment would consist in the development of the muscles by gymnastics, manipulation, and so on.

"Tenotomy would be of only temporary service, unless by its use a limb might be put in a better position for walking, which in itself is a most valuable gymnastic exercise. Manipulation should be the first step in treatment; operative and mechanical measures should follow as required."

Dr. John M. Keating: "It was with a great deal of difficulty that I arrived at a designation for this paper, and I finally adopted the French term, not so much because it suited the subject, as because there was no other name which would take in all the troubles of which this spastic contracture was a symptom. I look upon spastic contracture merely as a symptom varying in intensity from simple irritation to advanced disease of various kinds. I believe that there are cases resulting from irritation of certain centres in the cord, following certain blood-poisonings, with, perhaps, spastic contracture of the lower extremities, which are curable, but which, if allowed to run on, may become worse and develop lesions not at present understood. In the cases reported recently there has been no post-mortem record. Death has occurred in a few cases from pneumonia and from tubercular disease, but no examination of the cord has been made; or, if made, no evidence of lesion has been found. These cases may, I believe, from improper treatment or want of treatment, go on from bad to worse, and become chronic. They, however, do not endanger life, and they are supposed to be limited chiefly to the lower extremities, and rarely involve the arms.

"The case quoted from Dr. Mills was clearly one of congenital deficiency or faulty development of certain cerebral centres in the neighborhood of the fissure of Rolando. In such there seems to be but little prospect for other treatment than has been suggested in the discussion this evening. I call attention to these matters, which I hope will interest the members present, and urge them to report their cases and post-mortem examinations."

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, March 5, 1885. The President, B. F. Baer, M. D., in the chair.

Dr. Wm. Goodell read a paper entitled

A Year's Work in Laparotomy.

During the past year he had had thirty-two laparotomies. Of these, twenty-two were ovariotomies, eight öophorectomies, one hysterectomy, and one exploratory incision.

Of the twenty-two ovariotomies, ten were performed in the hospital of the University of Pennsylvania with three deaths, seven at his private hospital with one death. In eleven, both ovaries were removed. Seventeen had adhesions, which in seven were very formidable. Four of the women were over sixty years of age, and of these one died. In not a single instance did he refuse to operate, although three of his patients were very ill at the time of the operation.

The causes of death were as follows: An old lady, aged sixty-three, from whom a tumor weighing sixty-five pounds was removed at the hospital of the University, died suddenly from acute uremia, after doing well for three days. One kidney was found riddled with abscesses, the other was contracted. The second death also occurred at the same hospital, but from peritonitis, caused, probably, by hospitalism. The third and fourth fatal cases were in advanced stages of septicæmia when operated on. Each one had high temperature, frequent pulse, and night sweats from suppurating cyst. In addition, one was bed-ridden and had bed-sores. The other had greatly swollen legs, although the tumor was a small one. In each, the adhesions were universal and very formidable. The former died from shock fifteen minutes after the operation. The latter lived one week. Here was a dermoid cyst, which in his experience was liable to have extensive and firm attachments, making removal often difficult and dangerous. Dermoid cysts also were very vulnerable, taking on inflammation on the slightest provocation. In this instance, a physician had removed some of the fluid with a hypodermic needle. He (Dr. G.) had had two cases of small cyst in Douglas's pouch, in which violent inflammation followed the use of the aspirator. The lives of his patients were, for several days, in danger, but fortunately they recovered with obliteration of the sac. This should render one cautious about touching a dermoid cyst, unless he is prepared to perform the radical operation.

The fifth death occurred in a case forlorn from the outset. Five years ago, Dr. Goodell had removed a very large colloid cyst of the left ovary from this woman. A year ago her health began to fail coincidentally with the appearance of another abdominal tumor, and she was rapidly pulled down. On opening the abdomen, Dr. G. found that the cyst had burst some time before, and that a colloid material had escaped in large quantities into the peritoneal cavity. The degeneration was plainly malignant, as the womb, broad ligament, bladder and the parietal peritoneum, were studded with papillomatous masses. Dr. G. did not see her again, but her physician, Dr. Bauman, of Telford, wrote that the wound healed perfectly, no abnormal symptoms set in, yet the

woman grew weaker and weaker, dying from exhaustion on the sixteenth day after the operation.

Dr. G. stated that this was the only case in which he had twice performed ovariotomy in the same patient; but that he had at present a lady under treatment from whom, four years ago, he had removed the left ovary for cystic degeneration, and in whom the right ovary is now enlarging and will need extirpation before long. The liability of the sound ovary becoming diseased amounted in his cases to 1.5 per cent., and this strengthened him in the conviction that in women approaching the climacteric both ovaries should, as a rule, with but few exceptions, be removed. That this case made his third one of colloid degeneration in which the sac had burst some time before the operation. In each, the disease was evidently malignant. One survived the operation and went home, but died a few weeks later from a reaccumulation of colloid in the abdominal cavity, and a sprouting out of a crop of papillomata from the cicatrix in the abdominal wall. In the second one, both ovaries were removed, and from great emaciation and weakness the woman became plump and strong. She did well for two years, when a tumor made its appearance in the left broad ligament. A year later she died after much suffering. From this experience he would look upon colloid cyst with suspicion, and would give a guarded prognosis in respect to ultimate recovery.

With regard to the causation of ovarian cysts, he believed more and more that single life, sterility, and unfruitfulness, whether natural or enforced, were important factors. Thus, out of his twenty-two cases, nine were unmarried, and one was a widow. Again, of the married, one was sterile, one had borne but one child, and three had had only two children.

During the past year he had also performed eight öophorectomies. Three of these operations were demanded for excessive neuralgia and dysmenorrhœa from multiple fibroids, and two of them died, the difficulties of the operation being great. The other öophorectomies were performed for pernicious menstruation, ovaralgia, and threatened miscarriage, and were successful. In no case did menstruation return, although in one there was a slight show of blood.

Of other laparotomies he had performed two, one of them an exploratory incision in a woman greatly reduced by pain and obstruction of the bowels. Cancer of the pelvic organs was discovered. She died very suddenly from supposed embolism. The other laparotomy was a successful hysterectomy. The tumor weighed thirteen and a half pounds, and consisted of the womb with many large fibroid growths. The adhesions to the abdominal walls, bowels, and omentum, presented many difficulties, and needed many ligatures. The stump, which was fully four inches in diameter, was encircled by Kœberle's wire clamp, and treated outside of the peritoneal cavity. The patient recovered slowly and without a bad symptom.

The President presented a "gangrenous fibroid tumor of the uterus," and made the following report of the case: Mrs. J., a patient of Dr. Ira D. Canfield, of Renovo, Pa., fifty-two years of age; married; has had one child eighteen years ago; she has not been pregnant since. Her abdomen had been rather prominent for years, and about five years ago she discovered that it was becoming quite firm and hard over the lower protuberant portion. About the same time her menses began to appear more frequently than usual and to continue longer, until during the last year she flooded continuously three weeks out of every four. She thought she sometimes lost a quart of blood in twenty-four hours. There was great tenderness over the abdomen, so that the weight of the clothing was intolerable, and she had a constant feeling of painful distension, a sensation of bursting sometimes. These symptoms increased in severity, and in the latter part of January, 1885, labor-like pains supervened. Paroxysms of uterine tenesmus occurred several times a day, resulting, finally, in a discharge of serous fluid and gas, which must have been considerable in quantity, for the next morning there was marked subsidence of the previously distended abdomen. However, the large, dense, round, and evidently uterine tumor still remained, tolerating now comparatively rough manipulation, the tenderness having almost entirely disappeared. The quasi-labor-pains increased in frequency and strength, and shreddy putrid masses were occasionally expelled from the vagina. The patient began to show evidences of acute septicæmia. Dr. R. Homsbrong, of Lock Haven, was now called in consultation, when it was determined that nature was endeavoring to cast off a decomposing uterine fibroid, and an effort was made to assist. Symptoms of blood-poisoning became alarming.

On February 15 I was hurriedly summoned, and, with the patient anæsthetized, we found the following condition: Abdomen distended and tympanitic. A globular and symmetrical mass outlined within the lower portion of the abdomen, extending two inches above the umbilicus, about the size and consistence of the pregnant uterus at the seventh month of gestation. Hanging from the vaginal orifice was an elongated mass of toneless decomposing tissue, which resembled the appearance which might be presented by a great mass of amniotic membrane which had been allowed to remain in the parturient canal for several days after labor. It had a purplish, ashy color, and was as thick as my forearm. The odor emitted was sickening. Passing my hand beside this mass, for I could not easily separate it, I found the os uteri so dilated that the vaginal and cervical canals were almost of the same calibre, and the rim of the os could scarcely be defined. Advancing my hand within the cavity of the uterus, it passed among an immense quantity of semi-friable, soft, and shreddy tissue, and discovered several large tumors of firm consistence imbedded in, and apparently one with the uterine wall. Indeed, it was difficult to define the uterine wall, so irregular and thick was it at some points and so thin at others. The tissues at the attenuated portions—the uterine wall proper—appeared so weak that I feared the manipulations necessary to enucleate the tumor would make rupture of the uterus imminent. But their immediate removal was imperative, and fortunately their attachments were softened by the powers of degeneration which had caused the grave symptoms. I therefore introduced Thomas's spoon-saw-

and with that and my fingers I separated and removed section after section until there was nothing left of the uterus but the merest shell. The aggregated quantity removed, a portion of which I present this evening, almost half-filled a wooden bucket. The uterus did not contract well after the operation, and very free hemorrhage occurred, but it was controlled and the uterus made to contract by large and repeated injections of pure vinegar. The after-treatment was carefully and judiciously conducted by Dr. Canfield, and consisted of injections, into the uterine cavity, of vinegar twice daily until all fetid discharges had ceased. The improvement in the temperature and pulse of the patient was remarkable, and within a few days she expressed herself as feeling better than she had for years. She is now sitting up, apparently restored to health.

Dr. Harris inquired the cause of the gangrenous change in the structure. Was it confined to the new tissue?

Dr. Goodell thought that the process of autoenucleation was the cause of the degeneration of the tumor. The latter is a low grade of formation, and the contractions of the uterus and the constriction caused by the cervix-uteri around the already extruded portion interfered with the circulation in the tumor and caused its death. In one case he removed a tumor in which this process had just commenced; the removal of the tumor was followed by a gush of near half-a-pint of broken-down blood which was very offensive in odor. A sharp attack of erysipelas followed.

Dr. Baer could give no other reason than that advanced by Dr. Goodell. The tumor was of slow growth; No ergot was given, but labor-like pains supervened and may have cut off the circulation. The degeneration was apparently confined to the new growth.

(To be continued.)

Editorial Department.

Periscope.

Weak Heart.

We take the following from the *Medical Press*, March 18, 1885:

Every physician in extensive practice is occasionally brought into contact with cases of heart failure, of which the essential nature is somewhat obscure, and which are frequently recorded, when terminating fatally, as angina pectoris. As an example of the kind of illness typical of such affections some such history as the following may be taken: An apparently healthy man of sixty or sixty-five, of florid build and choleric temperament, is attacked soon after the exhibition of unusual excitement, with acute pains over the cardiac region, accompanied by shooting pains down the left side and arm, and a general sense of oppression. There is no loss of consciousness, no actual paralysis, although some degree of numbness may be experienced in the hand, but without materially diminishing the force of its grasp. Occurring in the absense of the physician, the bystanders administer stimulants, and resort to rubbing the arm of the sufferer, with resulting relief to the symptoms; and in an hour's time probably the attack so far remits as to admit of the patient's moving about more or less freely; or a fatal termination may then and there occur. It is more likely, however, that, as in the most recent cases of the kind we have encountered, an interval of rest will be noticed, and then, on a renewal of movement, the symptoms will once more set in, this time, perhaps, less violently than at first, and apparently ending in the appearance of quiet repose, during which death ensues almost without any indication of its approach.

Very often the subjects of such illness are unable to recall that they have ever been similarly attacked; they have not, that is, as is usual among the victims of angina pectoris, been for a greater or less number of years suffering from spasmodic affections of the heart, and to their own knowledge this organ of their economy is free from any kind of disease. Nor, as far as our own experience goes, does auscultatory examination yield any positive or reliable signs, with the exception that its sounds are distant and indistinct; but the most careful observation will fail to make out anything deserving the name of diagnostic indications. Moreover, the evidences of cerebral lesions are altogether absent, and the suggestions of any such origin for the symptoms exhibited in the cases described must be entirely excluded on purely clinical grounds. Neuralgia also can hardly be accepted as explaining the phenomena, inasmuch as a sudden single attack of so violent a nature as to produce a fatal result is improbable, to say the least; and wherever this cause is responsible for death, it is reasonable to assume that the final illness will have been preceded by less severe indications of cardiac neuroses. It is consequently necessary to look for some other producing cause of the effects, and this may with some assurance be assumed to reside in a deterioration of the heart itself. As already hinted, the subjects generally found to suffer in the manner under discussion are those in whom the existence of fatty heart might be reasonably suspected; and the *modus operandi* of the changes taking place under such conditions is not difficult to comprehend. As the structure of the walls degenerates the propulsive power of the heart is *pari passu* reduced, and a time ultimately arrives when its action suffices only to maintain the circulation, under conditions of ordinary and unexcited life. Even now, however, the habits of the individual are unconsciously adapted to the failing strength of the organ; all unusual exercise is avoided, and without at all being aware of the fact, the patient foregoes most of his customary exertion, the only point which presents itself to his mind being that he is "growing

old." This may continue for a length of time, but should it happen at any moment that either by indulging in a fit of passion, or by taking sudden and violent exercise, the heart is called upon to perform a labor beyond its diminished powers, then the strain becomes more than it can resist, and the attack described results. The popular remedy, a stimulant, usually in the form of whisky, which is at once administered, acts as a temporary aid to the exhausted organ, which, however, is left in a still more exhausted state when its effects have disappeared, and being then still under call to continue its normal action, it responds with rapidly-lessening strength to the needs of the circulation, and with or without a renewal of severe symptoms, it slows into death.

Such, we take it, is a general explanation of a large proportion of the deaths which have of late figured in reports as being caused by angina pectoris, and the frequency of which has caused some degree of surprise. We cannot, however, hope that treatment is likely to be materially assisted by acceptance of this view, since the structural degeneracy of the implicated organ must necessarily militate against any permanent restoration of its function; the more especially as the occurrence of an attack of illness offers a certain indication of its being inadequate to meet the calls made on its resources. Such failure in fact is proof that the organ has advanced so far in decay as to render its performance of even ordinary work uncertain, and it is suggestive that a great part of the cases observed are seen in persons in whom, on *à priori* grounds, fatty changes are indicated. Possibly also, many other sudden deaths, the reason for which is often obscure, may have been brought about by similar means; and the subject is at least one worthy of receiving attention.

Hemiplegia—Cerebral Softening—No Hemorrhage.

Mr. Thorowgood reports the following case in the *Medical Press*, January 21, 1885:

James B., æt. 50, while at work at St. Paul's Schools, Hammersmith, on November 14, 1884, suddenly became giddy, but did not fall down, and kept on with his work as a laborer until Saturday, November 15, when he found himself unable to walk and unable to move his left arm. On November 24, he was admitted into the West London Hospital. States that he has been feeling giddy, and as if he were tipsy. Generally, he has had good health, but last July had a sunstroke and fell to the ground. He had no medical assistance, and was all right in about four hours. Has had syphilis.

Present Condition.—Patient looks older than his years. He lies on his back; the conjunctivæ are congested; left pupil dilated, and he does not see well. The angle of the mouth is drawn down on left side. He can close his eyes and distend his cheeks. There is entire loss of motion in left arm and leg; the muscles feel lax and soft, but there is no loss of sensation. Tongue, when protruded, points to left side. Reflex movements cannot be excited; left arm and leg colder than the right. Right side of chest moves more freely than left in respiration. Patient speaks thickly, and complains of pain in forehead; has passed a motion in his bed. First cardiac sound weak, but free from murmur. Pulse 96; temperature 98.2°; urine acid and free from albumen—sp. gr. 1020.

Diagnosis.—Softening of central parts of brain on right side; probably no hemorrhage. A mixture was ordered thus:

℞.	Ammon. carb.,	gr. v.
	Potass. iodid.,	gr. iij.
	Tr. cinchon. co.,	℥j.
	Aq.,	ad. f. ℥j.—ter die.

The patient gradually became more feeble—and less intelligent.

December 2.—The temperature rose to 102°; his urine had to be drawn off by the catheter, and was very offensive and ammoniacal. At times he was sick; pulse was 100. No clenching of fingers observed, and paralysis remains as at first. A mixture of diluted acid hydrochloric, in infusion of buchu, was ordered on account of the condition of the urine. Gradually symptoms of congestion of both lungs came on. Temperature rose to 102.8°, pulse to 120, and rales were heard all over chest, both front and back.

December 10.— Respiration, 30. Diaphragmatic movement marked. Urine is drawn off by Mr. Thompson from time to time, and blood is seen in it. Motions passed involuntarily. Brandy and nourishment were fairly taken, but on December 14 patient died.

The post-mortem examination was made by Mr. Percy Dunn, twenty-four hours after death. No excess of subarachnoid fluid. Vessels of pia mater full. Arteries very atheromatous — the right anterior cerebral almost occluded, and left in a similar condition, but less advanced. The central portion of the right hemisphere was in a state of white softening for a space of about two inches. The disease was situate above the lateral ventricles. In addition, there were patches of softening in each crus. Some old pleural adhesions were found, and both lungs were in a state of hypostatic congestion. The heart weighed 16 oz.; ventricles dilated, and the mitral valve was thickened and incompetent. Liver was congested; kidneys granular, contracted, and with adherent capsules. The bladder was hypertrophied, contracted, and the mucous membrane was sloughing.

Remarks.—The interest of the present case seemed to lie in the clear indication of cerebral softening, to the exclusion of hæmorrhage. The weak and poorly nourished condition of the patient; his liability to attacks of giddiness; and, lastly, the fact that in his final seizure he had no loss of consciousness and no sudden fall to the ground—all seemed to indicate white softening. During the progress of the case no convulsive movements took place, nor was there any muscular spasm or rigidity. Failure of respiratory power, with prolonged expiration and mucous rales, eventually carried him off. The softening being found in the substance of the brain above the ventricles may have been the cause of the early failure of his intelligence.

Rapid Anæsthesia by Ether.

Dr. A. F. Muller thus writes in the *Med. News*, April 4, 1885:

The following method of rapid anæsthesia by ether was suggested to me seven or eight years

ago by a thought that the great length of time often consumed in etherizing patients was due to the fact of the frequent interruptions necessary to replenish the cone or towel used for the purpose, and the consequent partial recovery of the patient. To obviate the difficulty and obtain a continuous flow of pure ether vapor, I had made an apparatus, consisting of the two valves of a rubber foot-ball, sewed together at the edges and connected by a tube with a bottle containing ether, which is plunged into a bucket of hot water. Ether boils at 98°, and vapor passes over steadily and rapidly, and is inhaled by the patient, whose face is covered by the inhaler, protectected by a clean towel.

The result has been surprising, as will be seen by the following cases, all etherized by this method within the last three months at the Germantown Hospital. In none of the cases was there nausea previous to anæsthesia; one at least came to the house the morning of the operation having eaten a hearty breakfast. In most cases no struggling, and if so, only slight; no stage of excitement. In cases that require only a few moments for operation, the patient wakes up nearly as quickly as after nitrous oxide. After the patient is etherized, the amount passing over can be regulated by a stopcock at the bottle end of the tube.

The apparatus I have used is very crude, made only for the purpose of experiment, and I am having an improved one made, which I hope will be more satisfactory in some of its details.

The quantity of ether used to produce complete insensibility in no case exceeded three ounces; in some it was less than an ounce and a half.

Case 1. D. E., epithelioma of eyelid; plastic operation; unconscious in thirty seconds.

Case 2. K. McF., peritomy: unconscious in one minute twenty seconds.

Case 3. K. McF., peritomy: unconscious in one minute eleven seconds.

Case 4. M. P., paronychia and palmar abscess: forty-five seconds.

Case 5. Mrs. B., lacerated cervix: one minute twenty seconds.

Case 6. Mrs. B., lacerated cervix: one minute fifteen seconds.

Case 7. Bilateral lithotomy: one minute fourteen seconds.

Case 8. Miss M., dilatation of cervix: one minute forty seconds.

Case 9. Mrs. T., laceration of cervix: one minute twenty-four seconds.

Case 10. Mrs. S., fracture of anatomical neck of humerus: one minute seventeen seconds.

Case 11. Mrs. M., fracture of tibia and fibula: forty seconds.

Case 12. Mrs. M., fracture of tibia and fibula: one minute forty-five seconds.

Case 13. Mrs. B., fracture of tibia and fibula: two minutes.

Case 14. Cataract: one minute fifteen seconds. This man when operated upon in the Germantown Hospital for cataract in the other eye about a year ago, took a large quantity of ether, and required an hour to put him under its influence.

Case 15. Mrs. D., amputation of forearm: one minute thirty seconds.

Case 16. McLane, hypopyon: one minute twenty seconds.

Case 17. Mrs. S., lacerated cervix operation: one minute thirty seconds.

Case 18. Cleaver, sarcoma of iris: one minute twenty seconds.

Primary Sarcoma of the Penis.

To the Pathological Society of London (March 17), Mr. William Henry Battle showed a specimen of sarcoma of the penis removed during life. The patient was a gentleman, aged 60. There was no history of malignant disease in the family, and he himself had never had any serious illness. Ten months before coming under treatment, he had first noticed a blood-stained discharge from the urethra after micturition. Gradual enlargement of the penis, unattended by pain, ensued, and he had several attacks of hemorrhage during the last few months, chiefly after straining, but was only examined a fortnight before he came under Mr. Battle's care, having had a more serious loss of blood. He could give no information as to the exact point of commencement. He was a well-built, sallow, and somewhat emaciated man. The penis was considerably enlarged at the extremity, the prepuce in a state of phimosis, and stretched over a growth, portions of which projected from the orifice, dark colored and spongy in appearance. The enlargement extended an inch and a half into the body of the organ, was smooth and elastic, projected a little unequally, and was distinctly limited above. There was no ulceration visible. The inguinal and pelvic glands could not be made out to be enlarged. There was no pain, and no evidence that the internal organs were diseased. The urine flowed in three distinct streams. Three days after his arrival, hemorrhage followed the detachment of that portion of the growth which had been noticed at the orifice of the prepuce. In consequence, the organ was at once amputated by means of the knife and galvanic *écraseur*, close to the pubes. There was scarcely any hemorrhage. In the evening he had retention of urine; a catheter was passed, and the urine gushed out both through and by the side of the catheter, giving the impression that there was hypertrophy of the bladder. No inflammatory swelling followed the operation. There was, however, a purulent discharge from the stump until he left for home a month later. He had gained flesh and strength. The patient, unfortunately, died forty-three days after the operation. His symptoms, which were great thirst, profuse perspirations, jaundice, hiccough, and probably some gangrene of the scrotum, pointed to secondary new growth in the liver. Examination of the growth showed that it was distinctly circumscribed above, whilst the free surface was fungating and shaggy. The urethra was lost in the growth. A microscopical section showed it to be a sarcoma, containing small and large round cells, spindle-cells, and, especially near the free surface, very small cells, probably of inflammatory character. To judge from published records, sarcoma of the penis was a very rare disease. One case had been brought before the Society, by Mr. T. Holmes, in 1872, a melanotic indurated sore of the penis, which consisted of spindle and fusiform cells. One other was mentioned by Dr.

Gross, in his *System of Surgery;* it involved the body of the organ, and spread to the pubes. The patient died after its removal. The only specimen in the London museums was from Mr. Holmes's case, in the museum of St. George's Hospital. And, although it was possible that some of the older specimens, which were labeled "Cancer," might really be sarcomatous, there was, at present, no evidence to prove it.

Mr. Golding Bird said that four years ago, he had operated on a primary melanotic spindle-celled sarcoma of the penis; no glandular enlargement was detected. The man recovered from the operation, and was alive when last seen, four months later.

Dr. Sharkey had found that, in two cases of supposed epithelioma, the growth was really a mixed-celled sarcoma.

Treatment of Neglected Shoulder-Presentation.

Dr. Joseph Thornley thus writes in the *Brit. Med. Jour.*, March 21, 1885:

On January 7, 1885, I was called to attend Mrs. L., aged twenty-three, in her second confinement; it being late at night, and three miles away from home, I took my bag of instruments with me.

On arriving at the house, I was told by an old woman, whom I afterwards ascertained to be the midwife, that the patient had been in labor twenty-four hours, "but that she was not bad enough yet, as she had no pains worth mentioning."

On making an examination, I found the hand and arm in the vagina, and the uterus firmly contracted on the body of the child. I afterwards was told that the midwife had said in the morning that "all was not right, that there was a part in the passage, but that it would come all right yet."

I then anointed my left hand and arm with a mixture of vaseline and carbolic acid, passed it into the vagina, and attempted to return the arm; but, as usual, I found I could not do more than bend the arm up, but failed to alter the presentation of the body of the child. I then gradually, but with some difficulty, passed my hand into the uterus, which I found closely applied to the body of the child, the whole of the liquor amnii having escaped. I ultimately found a leg, and brought down the foot, on which I made considerable traction; at the same time, I got one of the women to make gentle pressure on the abdomen, to assist version; but I found that the more traction I used the more firmly the fœtus became wedged in the pelvis, and the arm and shoulder would not recede. I then asked for a skein of worsted, but, as this could not be got, they found me some very broad linen tape. I made a hitch of this, passed it over the right foot, and tightened it above the ankle. I then took the tapes in my right hand, and passed my left into the vagina up to the uterus; then, as I used traction upon the leg by means of the hitch, I gradually pushed the shoulder into the uterus, then the arm, and by this means the turning became quite easy; the rest of the labor was conducted on general principles. The child, a well-developed female, was dead. The mother made an excellent recovery.

The principal points of interest in this case are these: First, attempts to replace the arm in cases where the liquor amnii has escaped are useless and cause much pain; in no case have I been able to replace it, and thus alter the presentation. Secondly, by attaching the tapes to the leg, and using traction on them, it left room for my other hand in the vagina, by which means I was able to act directly on the two poles of the body at the same time. I feel sure, by this method, the dangerous operation of dismembering the child, as recommended by Dr. Donaldson, may be avoided; in many cases the life of the child might be saved, and that without any risk to the mother.

Death from the Cold Douche.

Dr. L. C. Armstrong thus writes in the *Weekly Medical Review*, February 28, 1885:

On the 28th of January, 1885, Mrs. S., a widow, 23 years of age, pregnant in the fifth month with her second child, met her death under the following startling circumstances:

On the afternoon of the above date Mrs. S., while entirely alone, took advantage of the absence of her parents to try what virtue there might be in the cold douche, when directed against the os uteri, toward producing an abortion. She had a few days before expressed to her sister the desire for riddance from her present condition, wishing to be delivered of the child in utero.

For two hours her parents were absent on that afternoon, from 2 to 5 o'clock. On their return they at once on entering the house missed their daughter, Mrs. S., in whose care they had left their home during their absence; on making search for her they sought her bed chamber; finding the door locked, an entrance was forced. A sad sight met their gaze. There lay the dead body of the daughter whom they had left in perfect health not three hours before. Between her limbs was a basin of cold water, in which lay a Davidson syringe.

No post-mortem examination was made, but the testimony before the coroner and jury proved very clearly that no drug had been taken.

It was evidently a case of death from shock produced by the stream of cold water thrown with criminal intent into the vagina and against the congested os of a pregnant uterus.

The patient was an extremely healthy lady, who had suffered but little in her first labor; and that this strong constitution should so suddenly succumb to the cold douche should indeed be a warning to women of the danger in the use of so simple an instrument as the Davidson syringe.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Another strong plea for the cottage and country method of caring for the chronic insane is urged in an article by Dr. C. H. Hughes, of St. Louis. What he recommends is as follows:

Every insane community of mixed, recent and

long-standing cases, or of chronic cases exclusively, should be a home, and not a mere place of detention. It should be as unprison-like and attractive as any residence for the non-criminal. It should have for any considerable number of insane persons at least a section (640 acres) of ground. It should be in the country, of course, but accessible to the supplies of a large city. It should have a central main building, as architecturally beautiful and substantial as the State may choose to make it, provided with places of security for such as require them in times of excitement, with a chapel, amusement hall, and hospital in easy covered reach of the feeble and decrepit, and accessible, without risk to health, in bad weather.

——The question whether tobacco produces amblyopia, is discussed in a reprint before us, by Dr. W. F. Coleman, of Baltimore. His reply is embraced in the following paragraph:

When we find in common with so large a number of competent and conscientious observers, that impaired vision (accompanied or not by apparent changes in the optic nerve) so frequently occurs without any cause to which it can be attributed except the use of tobacco, and that the sight so generally improves when it is given up, without other treatment, or change in the habits or surroundings of the patient, we can scarcely hope for stronger evidence of the cause of the amblyopia.

——The doubtful propriety of interfering with wounded brains is urged by Dr. John B. Crawford, of Wilkesbarre, in an address before us. He justly says:

Experience has shown that there are few portions of the brain into which missiles have not found their way and lodged for considerable periods of time, without giving rise to any serious disturbance of the system. These, it is true, are exceptional cases—but we know that they may occur; and they do occur with such frequency that in doubtful cases it would seem more prudent to accept the slender chances that their possibility bestows, rather than to complicate, by surgical procedures, even a prospectively fatal injury, with a view to the doubtful benefits that *may* arise from their performance.

——An interesting address, by Dr. John H. Packard of this city, is one in pamphlet form before us, on "The Great Advances in Surgery and how They Have Been Made." It is a thoughtful vindication of the realities of history as against artists and romancers. It is necessarily rather destructive in tone, as may be judged by the following extract:

If one were to undertake to set down absolutely unquestionable doctrines or principles only—fixed facts, which it is certain cannot by any further degree of research be changed or set aside—he would find that the resulting material would be of very small bulk indeed. What had seemed to be a stately building would turn out to consist of a very few stones, with a shapeless and irregular, because temporary and mutable, scaffolding over them.

BOOK NOTICES.

Notes from the Physiological Laboratory of the University of Pennsylvania, edited by N. A. Randolph, M. D., and Samuel G. Dixon, M. D. 8vo., pp. 88. Philadelphia. J. B. Lippincott & Co. 1885.

These Notes embrace the results of a large amount of original investigation, and are well worthy the attention both of physiologists and therapeutists. They are a collection of previous publications scattered in various journals and society publications, and merited this preservation in book form.

Some of the points investigated were: the effects of starch, cod-liver oil, and petrolatum on the fæces; the distribution of gluten within the wheat grain; the digestion of raw and of boiled milk; the nutritive value of brainy foods; the cutaneous absorption of nicotine; diet in angina pectoris; the cutaneous absorption of salicylic acid, etc.

One note is on "a painless escharotic," which is a saturated solution of cocaine hydrochlorate in nitric acid. It is said to produce a deep eschar, with no other sensation than a "tickling, with slight puckering." This is certainly an important hint.

A Guide to the Diseases of Children. By James F. Goodhart, M. D., F. R. C. P., etc. Revised and edited by Louis Starr, M. D. 8vo., pp. 737. Philadelphia. P. Blakiston, Son & Co. Price, cloth, $4.00.

The author of this work intended it more especially as a manual for students, and hence avoided much of the less important pertinent matter relating to his subject, which is found in more comprehensive treatises. It is, however, well suited to the wants of most practitioners, who do not care to go into the branch profoundly. There is enough in the volume to satisfy most readers.

The author begins with a discussion of dentition, and proceeds to treat of the diet of children both in health and disease, and at their various ages. He takes up the usual diseases of childhood, one after another, throughout the list. His style is vigorous and clear, and is aided by a judicious typographical arrangement, and a lucid disposition of his material.

The editor has done his part of the work creditably, adding a number of paragraphs and notes, designed to bring the English original more into conformity with the usual line of American practice.

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SANITARY CONFERENCES.

The interest that the world at large is manifesting in sanitary matters is most gratifying. Among other recent evidences of this interest we note from our foreign exchanges that proposals are on foot for holding another International Sanitary Conference, to discuss the question of quarantine, and, if possible, to draw up international regulations; for various reasons, however, the proposal has never taken practical shape until recently. The Conference which will probably soon assemble had its origin in a proposal made by the Italian to the English Government in August, 1883, to hold an International Conference at Rome; the primary object was to concert a line of action with regard to the regulation of quarantine against cholera. After many delays and much discussion of the grounds upon which Great Britain would be willing to take part, it has been finally arranged that the Conference shall meet at Rome this month. The questions to be raised at the Conference have been materially narrowed, as a result of the preliminary negotiations which have been going on for the last year and a half; its deliberations, however, will, unquestionably, have considerable commercial and political significance.

The conference held in Vienna in 1874, recognized the futility of quarantine, and recommended, in its place, the system of medical inspection. The conference further recommended to those States which refused to accept this system that, in imposing quarantine, the period should be rigorously limited; the maximum period allowed, under any circumstances, was ten days, and the time occupied by the voyage was to be included in this. These recommendations have never been acted on. When the epidemic appeared at Toulon, last year, Spain put all vessels from French ports into quarantine for ten days in addition to the voyage; Italy imposed fifteen days, unless the passage had occupied more than ten days, and in that case the period of detention was another ten days; Austria imposed ten days, Turkey fifteen, Greece eleven, Russia fifteen. In this way a voyage, which in the ordinary course

would have occupied a week, might be made to last for more than four weeks.

There is reason to believe that the views of some of the Mediterranean Powers, especially Italy and France, with regard to quarantine, have undergone considerable modification, owing to the experience gained during the last epidemic. The work of the Conference will thus be materially simplified, and the chance of a successful issue of its labors greatly increased. Egypt, as appears to be the case with every other topic of the day, must come in for a large share of attention. The sanitary administration of that country has long been supposed to be of importance to Europe. In January, 1881, the Egyptian department charged with sanitary affairs was, by a decree of the Khedive, subdivided; the internal administration being committed to a board sitting at Cairo, the external relations of Egypt were to be regulated by the "Conseil Sanitaire Maritime and Quarentinaire." All the European maritime powers are represented on this board, which is, nevertheless, not an international board, but is strictly part of the Egyptian administration. The decree which constituted this Board threw upon it the duty not only of preventing the introduction of epidemic or epizootic diseases into Egypt, but also of preventing the transmission of these diseases to other countries. As might have been anticipated, this latter duty, and the peculiarly lax constitution of the Board, have led to endless difficulties, which have had a most injurious effect on trade, without rendering any public service. The reform of this Alexandrian Board must undoubtedly be one of the subjects discussed at the Conference which is about to assemble.

There is good reason to hope that the majority of the Powers will be practically unanimous in adopting the system of medical inspection, and, *a fortiori*, will not be willing to grant quarantine powers to any board sitting in Egypt.

SANITARY PRECAUTIONS AGAINST CHOLERA.

Recent advices from Europe report—what was fully expected by intelligent physicians—that the cholera poison had been only slumbering during the winter, and has broken out with renewed virulence in Spain.

It will certainly proceed on its travels, to stop, no one can say where. Hence the urgency of immediate action in this country. Many measures have been suggested, and many should be undertaken. Among them, the plans laid before the Sanitary Council of the Mississippi Valley, by Dr. John H. Rauch, of Illinois, at its last meeting, merit a prominent place, and we are glad to give them a wide circulation.

This distinguished sanitarian teaches that the measures to be enforced should include: (1) A prompt notification of the outbreak. (2) The local treatment of the outbreak. (3) Supervision of travel from the infected point.

Concerning the first of these there is little new to be said; but it is desirable that specific instructions be prepared with reference to the local treatment of an outbreak, including the duties of the health authorities; the provision of hospital facilities, and of accommodations for those removed from infected buildings or localities; the action concerning water-supply; the subject of disinfection and disinfectants; the care of water-closets and privies, especially those belonging to public buildings, hotels, schools, factories, workshops, railway stations, etc.; the daily personal examination of those living in the vicinity of a cholera case, and the prompt treatment of diarrhœa, cholerine, or other suspicious symptoms among such; the securing of early reports of cases by the attending physician, and other details.

A cholera outbreak would also demand an extension of the system of sanitary inspection and supervision of travel by rail, as fully at least as the system has hitherto been applied to travel by water with reference to yellow fever. Owing to the mode of the diffusion of the cholera poison, and the greater magnitude of railway travel as compared with that by river, this is a matter of much importance. All cases of diarrhœa or looseness of the bowels, among travelers, should be carefully and continuously watched, and the dejections be thoroughly disinfected. Water-

closets and privies at railway stations should receive strict attention; and it is highly desirable that the closets on passenger coaches should be so arranged that every dejection may be disinfected before discharging it on the ground, to be possibly washed into a water-supply, or to affect workmen on the track, etc., and thus extend the disease.

No train or boat should be allowed to proceed without being properly supplied with disinfectants and the ordinary cholera or diarrhœa remedies, with plain, specific directions for their use, and for the care and treatment of a cholera patient until a physician can be procured.

The necessary legislation to carry out this scheme should be promptly taken by states and cities, so that a solid front of sanitary precautions should be opposed to the approaching pestilence. Were such unanimity obtained, we need fear it but little.

THE RESULTS OF PATENT MEDICINES.

Judging by the sales of secret nostrums and the colossal fortunes piled up by the patent medicine men, there has been no real advance in intelligence of late years. For the patronage extended to such dangerous or worthless preparations is a very fair index of the general intelligence. Those who put their trust in loud-mouthed quacks,

> "Whose skill,
> "Is to make sound men sick, and sick men kill,"

are necessarily too imperfectly educated to distinguish science and sound knowledge from their counterfeits.

The damage done is immense. Not only are the poor beguiled of their hard-earned money, and the sick further afflicted without benefit, but the actual slaughter is immense. An English physician, Dr. Meitkerke, in a recent publication, states that a single one of these nostrums, very popular as a soothing draught for infants, "is the undoubted cause of death of 150,000 children annually" in the kingdom of Great Britain. Yet there are dozens of the kind in vogue, the active ingredient in all of them being some form of opium. Indeed, forty per cent. of the patent medicines in Great Britain contain more or less of this perilous stuff.

Yet, with such facts before them, the newspapers of every grade, lay and clerical, religious and reformatory, continue to advertise and recommend in "reading notices" such poisons. Out with such hypocrisy!

Notes and Comments.

Case of Monstrosity.

The following case, which Dr. B. R. Johnson reports in the *Lancet*, March 21, is worthy of record. He says:

"A. T., aged forty-two, married nineteen years, had ten children, the eldest eighteen years old. Menstruation ceased last March, and she expected her confinement about the middle of November, at which time she consulted a doctor, who told her that if she went much longer she would probably have twins, she replying that she did not care so long as they were not "Siamese." On January 22 she went to the lying-in hospital, and stated that she thought there was something wrong with her, and that hemorrhage had previously occurred. On the 23d I found the patient had been in labor since 10 p. m. the previous night. On examination the head was found pressing on the perineum, and all pains had ceased. This being the case, I immediately applied the forceps, and delivered the head without difficulty; but it was not until after prolonged traction that the shoulders partially emerged, when I discovered that there was an outgrowth from the chest, which prevented any further movement in that direction. I therefore passed my hand round the lower part of the abdomen, and delivered the breech and legs. The child was now entirely born; but finding it connected from the neck to the umbilicus with another child still in the uterus, I laid hold of the legs of the second one, and delivered it without difficulty. The placenta followed in a few minutes. There was only one cord, proceeding from an umbilicus common to both. The children were dead, and were both boys. In the ordinary position they faced one another, but the connecting link was sufficiently lax to allow them to lie partially side by side. In every other respect they were perfectly formed, and weighed 11 pounds. The next day, when the mother heard of their

condition, she told the nurse that in March last she went to see the "Two-headed Nightingale," and fainted at the sight. I regret to say that the occurrence so affected her that three days after she committed suicide by jumping out of a window."

A Simple Expedient in the Management of Strangulated Hernia.

Dr. S. H. Hurd, of Long Branch, N. J., writes to the *Med. Record:*

"Under the above caption, Dr. C. A. Stewart, of Chicago, calls attention in *The Record* to a simple expedient he has resorted to successfully in five cases of strangulated hernia after taxis had failed. It consisted in dilatation of the constriction which produces the strangulation at the abdominal ring, by passing the finger along the inguinal canal, carrying the integument before it, until the constricting ring is felt. The finger is then gently insinuated into the opening, and, if the band of opposing fibres does not yield readily, gentle pressure is made against the upper border of the ring until it is felt to give way, when a resort to taxis again will ordinarily result successfully. Last year, I called the attention of the members of our County Society to this plan, and its happy results in several cases.

"One of my patients referred to was sixty-eight years of age, and several unsuccessful attempts had been made to reduce the hernia. I had made every preparation for surgical interference, and the patient was anæsthetized, when Dr. Green, of this city, attempted it by the above method and succeeded. The effort, though, was prolonged, and much patient and persistent pressure was made upon the fibres of the constricted ring before they yielded. This they ultimately did, but not by the 'gentle pressure' Dr. Stewart speaks of. An attack of peritonitis followed the reduction, but the patient made a speedy and happy recovery. Two similar cases treated by the same simple method, with no untoward symptoms following, warrant me in underscoring this 'simple expedient.' The first case occurred five years ago, and I do not report it with a view of establishing any priority of claim, but rather as a confirmation of the practice or plan recommended."

Carbolic Acid in Indigestion.

Dr. Edward Berdoe thus writes in the *British Med. Jour.*, March 21, 1885:

I have lately treated several cases of indigestion with carbolic acid, and the results have in each instance been so fortunate, that I am anxious to add the results of my experience. I have found it most useful in that form of dyspepsia known as fermentative, accompanied by constant sour rising and eructations of gas, with pain after meals, and discomfort even after drinking milk or cocoa. My attention was first directed to it by Dr. Fenwick, who gave the glycerine of carbolic acid (1 part of crystallized carbolic acid to 4 parts of glycerine). The dose is from five to ten minims in mint-water, or other convenient vehicle. As it mixes well, I think it a more safe and elegant form than a solution of the acid in water only. When there is much pain of the stomach after food, I have found it useful to add five or six minims of the liquor opii sedativus to each dose; and when there is want of tone in the seat of digestion, and bad appetite, five to ten minims of the tincture of nux vomica will often be found serviceable. I have found these remedies also very valuable in the above combination in cases of pyrosis, where, I think, the sedative influence of the carbolic acid on the mucous membrane is far more useful than the bismuth one usually given in such cases. It is an interesting subject of inquiry whether the carbolic acid acts by arresting fermentative changes in the stomach, or by its well known anæsthetic influence on mucous membranes. I have long given one-grain pills of this remedy in cases of vomiting from various causes, and have rarely found it fail to arrest it. In some of these cases there was no fermentative condition of the contents of the stomach; some of them were cases of reflex vomiting; yet all were, with few exceptions, greatly benefited. It would be desirable that the subject should be still further discussed by those who have had experience of the drug.

Syphilis and the Depopulation of France.

The late Professor Gross is credited with having made the remark that he believed the whole world was becoming gradually syphilized. Whether this be so or not, we know that this fatal disease (in its ramifications) is exceedingly prevalent in France, and at the same time we know that France is rapidly drifting into infidelity and into scoffing at everything pertaining to the religion which she practiced when she was the terror of Europe. Put two and two together and see how much they make. Read the following from the *Med. Record:*

"The members of the Académie de Médecine have recently held several long debates upon the subject of the depopulation of France. Like most of the Académie's prolonged discussions, the result

has been rather empty. At the last meeting, however, something definite was brought forward by M. Fournier. The depopulation of France, he said, was due to two causes: a low birth-rate, and a high death-rate among infants. Physicians could do little to affect the former, but in lessening infant mortality there was an opportunity for work. M. Fournier thought that there was a large and increasing amount of syphilis in France, particularly in Paris. The result of this was sterility or high infant mortality. Among one hundred children born of syphilitic parents, sixty-eight died. M. Fournier urges renewed efforts in the prevention of syphilis, and the adoption of some measures to prevent the marriage of syphilitics."

Wound of Vena Cava and Right Auricle.

The following case, reported by Dr. E. P. Flynn in the *Brit. Med. Jour.*, March 21, 1885, is sufficiently rare to warrant reproduction:

S. H. was admitted into the Sunderland Infirmary in September, 1883. He had been stabbed. A penetrating wound, one inch and a half in length and half an inch wide, was found on the right side, two inches internal to the right nipple, between the third and fourth ribs. Through this wound, blood and air gushed forth with every inspiration. When seen, he was pulseless and dying.

The necropsy was made twenty hours after death; rigor mortis was well marked. On tracing the wound in the right side, before described, it was found to pass inwards and towards the left side through the edge of the middle lobe of the right lung. The inferior vena cava and pericardium were wounded, and the right auricle was laid open. The wound in the auricle was half an inch in width. Both the pleural cavities and the pericardium were filled with blood.

Remarks.—The points of interest in this case are the time he survived (one hour and a quarter) and the fact that he ran a distance of twenty yards before falling. Jamain has collected seven cases of wounds of the right auricle, in which death followed in from seven hours to twenty days; but in this case, in which the vena cava as well as the right auricle was wounded, the patient lived an hour and a quarter.

Treatment of Adenoid Vegetations of the Pharynx.

From the *Brit. Med. Jour.*, March 21, we learn that Mr. E. C. Baber has read a paper on the simple treatment of adenoid vegetations of the naso-pharynx, referring to their removal by the finger-nail, which he now prefers to the forceps and galvanic cautery he formerly used. In eighteen cases occurring in children between 4 and 14 years, in which this simpler method had been used, it had answered very well, and could be applied generally without anæsthetics. The vegetations were freely scraped once a week for usually four weeks, and, afterwards, an examination was made about once a month for some time. The walls of the cavity should then be carefully palpated, and the nail buried in the growth, so as to cause sloughing afterwards. Free bleeding might occur at the first operation, but might be arrested by syringing with cold water. A metallic finger-nail was not necessary, but the finger should be protected from the teeth, and, for this purpose, a dogskin glove, cut off at the tip, was better than a rubber-ring. Daily syringing with warm salt and water was often useful, unless there were tendency to erection of the inferior turbinated bodies, when it was better avoided. The writer did not think recurrence more likely with the above treatment than with that by forceps, which was, of course, suitable sometimes, especially if an anæsthetic were given; but, so far, his favorable results with the nail corroborated those of Guye of Amsterdam, and others.

Smoking as a Cause of Cancer.

To give every side of every question, we note from the *Brit. Med. Jour.*, March 21, the following from Mr. J. Whitehouse. We do this because we have already quoted somewhat dissimilar views from the same journal. They have both been called forth by the popular notion that General Grant's cancer was caused by cigar smoking. Mr. W. says:

"As to whether smoking may be the immediate cause of cancer, surgeons are not agreed; but there is a condition of the tongue which is, in many cases, the precursor of epithelioma, namely, 'leucoplakia;' and this disease is more generally considered to be caused by smoking. Mr. Barker, writing on this inflammation, in Holmes' *System of Surgery*, points out that amongst seventy-five recorded cases, seventy-one smoked, and only four were non-smokers. Buzenet used the term '*plaques des fumeurs*' for this disease, because he was convinced that smoking so often gave rise to it. Mr. Hulke has more than once shown that 'leucoplakia' may be the starting-point of epithelioma; and out of the above-mentioned seventy-five cases, forty-four developed epithelioma, and in one only was there a family history of cancer."

The Abortive Treatment of Diphtheria.

The *Med. News* (March 28) tells us that in a brief communication to the *Berliner Klin. Wochenschrift* for January 25, Dr. Coestes, of Biebrich, adds his testimony as regards the efficacy of the abortive treatment of diphtheria by calomel. He has recently treated five cases, including his own, by the administration of 15 grains of calomel, generally in three doses, closely repeated. Only one terminated fatally, and in that the trachea was so much obstructed when he was called, that tracheotomy seemed inevitable. Succeeding the administration of calomel, however, with frictions of mercurial ointment and inhalations, the dyspnœa grew much less. Ultimately, however, the operation was performed, and the child died on the seventeenth day. The remaining cases all recovered, and Dr. Coestes justly says no one can take it amiss, if he, in consequence, has had his faith in abortive treatment strengthened.

The Treatment of Night-Cough.

This troublesome condition, which often precludes sleep, is treated of by Dr. A. W. MacCoy in the *Med. News*, February 28, 1885. He thus concludes:

"It is a well-known fact that a drink given to the child will often cause a cessation of the paroxysm, the fluid simply pushing downward the exciting foreign body. This clinical fact gives us the clew to the successful management of these troublesome cases. If the nasal passages are thoroughly cleansed before the child is put to bed, the night will probably be uninterrupted by this irritative cough. If the discharge accumulates in the nasal passages or upper pharynx during the night and gives rise to a paroxysm, it is a simple procedure to cleanse the nasal chambers, and at once relieve the symptoms. Treatment can be most effectively carried out by means of a spray composed of an aqueous solution of an alkali. By its use these cases need no longer be harassing to either practitioner or patient.

Cocaine in the Operation for Phimosis.

Dr. F. Hibbard reports the following case in the *Cinn. Lan. and Clinic*, April 4, 1885:

A young man came to me on February 14, presenting an acquired phimosis; as there was no redundancy of tissue, I decided upon the slitting operation, requesting him to return in a few days.

I procured a four per cent. solution, and on February 27, I inserted a small hypodermic needle, at a point corresponding with the corona glandis, passing it forwards between the skin and mucous membrane, to the end of the prepuce; then slowly withdrawing it, injected twenty minims of a four per cent. solution of cocaine; in fifteen minutes I divided the tissues along the line of injection, causing no pain whatever. The patient spoke of a sensation as of cutting leather; the stitches were then taken, causing but very little pain toward the close of the operation.

Hereditary Transmission of Dupuytren's Contraction.

As of interest in connection with the hereditary transmission of deformities, we note the following case which Dr. Sydney H. A. Stephenson reports in the *Brit. Med. Jour.*, March 14, 1885:

E. McC., twenty-three years of age, has had, from birth, the little finger of his right hand contracted; it is flexed towards the palm at the second and third phalangeal joints, and the whole finger deviates somewhat to the radial side of the hand. On the whole, it is a typical example of Dupuytren's contraction. The patient's maternal grandfather and his mother's brother both have the same finger of the same hand contracted in a similar way; and, in both these cases, the contraction is said to have existed since birth. The patient has one brother and four sisters living, none of whom exhibit any finger abnormality. There is no family history of either gout or rheumatism.

Asthma Caused by the Smell of a Cooked Hare.

As evidencing the power of imagination, Dr. John C. Thorowgood reports this case in the *Brit. Med. Jour.*:

A gentleman who, from his boyhood, has been liable to spasmodic asthma, and who is now about forty years old, enumerates, among various excitors of his complaint, the presence in his room of a hare or its skin. Many persons are affected with asthma in the presence of a hare or a cat, as is pretty well known; but, in my friend's case, a roasted hare is even a more speedy cause of an asthmatic seizure than is the furry coat of the creature; and he has related to me the very severe attack which he once had on meeting a roast hare in the hall, under a cover, on its way to the dinner-table.

A New Mode of Dressing Wounds.

From a foreign exchange we learn that at the Académie de Médecine M. Sée spoke on a new mode of dressing wounds which would be perma-

nent. When a wound is going to be sutured, he arrests the blood by catgut ligatures at first, and then dusts the part with subnitrate of bismuth, finely powdered. When all oozing has ceased, he makes, if the wound is profound, deep sutures, and the drainage-tube is made of red india-rubber. More powdered bismuth is applied, and the whole covered with a phenicated pad, in the centre of which is slipped a sachet containing a certain quantity of corrosive sublimate. The tubes are withdrawn at the end of the third or fourth day, and the dressing removed in a fortnight or three weeks, when the cicatrix is fully formed.

Small-Pox by Correspondence.

A curious but important case, in which small-pox infection was conveyed in a letter, is recorded by Mr. Karkeek, in his recent report on the sanitary condition of St. Mary church. On March 1st, last year, a case of small-pox was reported to him in the person of a domestic servant, who had seen no one ill or recovering from small-pox, and who had not been out of the town for months. Moreover, no case of the disease had occurred in St. Marychurch or Torquay for years. On inquiry, it was found that the infected person had received letters from her sister, an inmate of the West Bromwich Small-pox Hospital, "who had unfortunately sent the germs of the disease in her letter." The case was at once removed to the Torquay Sanitarium, and the only person in the household who became ill was the recipient and reader of the letters.

Urethral Spasm in the Female Relieved by Cocaine.

Dr. George Newell Hall writes to the *Med. Record*, that he was called to see a married lady, twenty-five years of age, who was suffering from retention of urine and considerable pain. She stated that she had been subject to these attacks from childhood, and had taken opium for their relief from the time she was thirteen years old. The spasms lasted, as a rule, for forty-eight hours, and were accompanied with considerable pain and a constant desire to urinate. An attempt to pass a catheter was unsuccessful. A grain and a half of cocaine was then dissolved in an ounce of water, and the catheter being introduced as far as the obstruction, about half of the solution was injected into the urethra. In about five minutes the catheter was again introduced, and passed with ease into the bladder.

An Ointment for Itch.

Prof. Hardy publishes the following formula in the *Union Medicale:* Naphthol, 10 parts; vaseline, 100 parts. The powdered naphthol is to be dissolved in half its weight of ether. This solution is to be mixed with a portion of vaseline, and heated to 30° or 40° C., until the ether has been entirely evaporated, when the rest of the vaseline is to be added, and the mass carefully triturated. The homogeneous ointment thus obtained is to be kept from the access of air. It may be applied at any stage of itch, and whether it is or is not complicated with other eruptions. The duration of the treatment varies from 10 to 15 days.

Ergot in Constipation.

As a rule, we would hardly think of ordering such drugs as ergot for constipation, but when due to atony of the muscular wall of the intestines, we can understand how it would prove beneficial. Two such cases are reported by Dr. Granzio in the *Allgemeine Med. Zeitung*. They were caused by, or, at least, followed the abuse of purgatives. Three doses of ten grains each were given at intervals of two hours, and were followed by a copious evacuation. A second stool occurred spontaneously the next day, and after the administration of ergot in small doses for a few days a definite cure was obtained.

Correspondence.

The Early Treatment of Typhoid Fever.

Eds. Med. and Surg. Reporter:—

Typhoid fever, so-called, is emphatically a low and slowly progressive fever, principally enteric. The progress of the disease is so slow, that with proper treatment the typhoid condition need never occur. It is remarkable, that those who are most liable to this fever are generally free from all organic disease, and during the first stage of the disease, the brain, the stomach, and the liver, are all in fair condition, and with these *aids* the physician ought to be, and remain, master of the situation.

But, unfortunately, we find in the books so many symptoms described, and so many remedies suggested—at best only an expectant treatment—that the attendant physician too often becomes undecided, and notwithstanding the slow progress of the fever, he permits the typhoid condition to supervene, and then he concludes that the case must run its accustomed course of six to eight weeks, with the chances in favor of the priest taking charge in the end.

When first called, the physician finds low fever, tongue furred, urine scant, restlessness, and slight constipation. The constipation, however, is not properly a symptom peculiar to this fever; it is

an accompaniment of all fevers; nor is the attendant diarrhœa properly a symptom; it is but the sequence of the constipation, the *re*-action of nature, *vis medicatrix naturæ*.

The plain indications are, to abate fever, clean the tongue, calm the nerves, and restore the secretions and excretions to their normal conditions, whereupon nature will aid you efficiently; all of these conditions can be fulfilled by giving

℞.	Spts. æth. nit.,	℥ ss
	Quinia sulph.,	gr.j.

Mix and administer in a little water, three or four times a day. Also,

℞.	Hydrarg. iodi,		
	Pulv. ipec.,		
	Ext. hyos.,	āā	gr.ss.
	Gum, camph. pulv.,		
	Ext. col. comp.,	āā	gr.j.
	Syrupus,		q. s.
M.	Ft. Pil.		

Give one every twenty-four hours. Don't pester patient every hour with a dose of something. Let him rest, and sleep.

Under this treatment the tongue will become moist, and the fever abate almost immediately, and the tongue will clean off in forty-eight hours. The patient, will then relish food, give him all he wants of dry toast, and tea, with milk in it.

Give patient all the cold water he wants, but a very little at a time. Have no fears of ptyaiism.

The nitre-quinia solution is so diffusible, the patient obtains the full benefit in *ten minutes*. I never knew either of these *contra* indicated, where either was indicated.

One drachm of spts. æth. nit. is a perfect solvent of two grains of quinia sulphas, when both are of standard purity.

A pill compounded as previously described is quite efficient, and yet almost as mild as a pill of bread.

The aim should be to produce one evacuation in twenty-four hours; it may require only half a pill, one pill, or a pill and a half.

Don't urge the liver to a pernicious activity, or it will seek a rest by reaction, and give you trouble, and endanger your patient.

With one evacuation in twenty-four hours, you need not fear diarrhœa.

This treatment was first adopted with excellent success, in the case of Surgeon Spencer S. Stoat, June, 1862, in camp at Aquia Creek, Va., who was suddenly taken down with typhoid malaria. In Camp Belleplain, Va., during the winter of '62 and '63, before the writer had fully realized the efficacy of this treatment, a patient was permitted to sink into the typhoid condition. Pulse, 100. Tongue much swollen, as dry as a chip, black-brown color, depressed in the centre, and curled up at the edge. I gave him a half drachm dose of the *nitre-quinia solution*, and sat by his side. In ten minutes I repeated the dose, and remained with my finger on his pulse. In fifteen minutes I again repeated the dose and continued by his side, and in thirty minutes from the first dose his pulse had become softened and reduced in frequency, his tongue moist, and rounded up beautifully. (A result so remarkable, could never be forgotten). Patient then partook sparingly of *tea and toast*. I then ordered one pill, as heretofore described, to be given every twenty-four hours, and the tongue cleaned off in forty-eight hours. Patient relished food, and improved, (not slowly,) but rapidly, without a relapse.

Again, in the winter of '63–'64, in camp near Culpepper, Va., regiment was ordered to Raccoon Ford, 12 miles distant, and returned the following day. During the absence of the regiment, the hospital tent had been removed, leaving a typhoid fever patient exposed all night and the greater part of two days, to a cold drizzling rain. A relapse was the inevitable result; pulse 100, tongue dry and curled at edge, together with *low delirious mutterings*, so ominous to the ears of all attendants. Sinapisms were immediately applied to his feet, and the *nitre-quinia solution* given to moisten his tongue. The compound pill was given to clean his tongue and give a relish for food, and the old soldier rallied and recovered, contrary to the prognosis of several surgeons who witnessed the case.

Micro-organism is a scientific theorem of exceeding beauty and interest. The germ theory may be all that is claimed for it. The air may be full of spores, water and soil full of microbes, the human body filled with bacilli—straight, crooked, and spiral, and covered with cryptogamia—and yet, notwithstanding, under this treatment the typhoid patient will become convalescent in less than fifteen days; possibly in ten. With due regard to and proper treatment of various symptoms that *may develop*, the death-rate of typhoid fever, which at present is about fifty per cent., ought to be reduced to five.

Geo. M. Ramsey, M. D.
Clokey, Pa.

Shoulder Presentation in a Twin Labor.

Eds. Med. and Surg. Reporter :—

On March 21, 1885, I was called by Mr. W., two miles from town, to assist Dr. B., of Montgomery, in a critical labor. When I arrived, the doctor told me that there seemed to be a knee presentation. Upon examination, I diagnosed a shoulder presentation. Both shoulders were forced down partially in the superior strait, the head on the right and the body on the left side. The spine could be distinctly felt between the two shoulders and scapulæ. After the doctor made another examination, he came to the same conclusion that I did. But he seemed in no hurry. He said he must go to Montgomery, but he would be back in an hour and bring with him some chloroform. He did not arrive for three hours, during which time our patient suffered severely for perhaps an hour and a half, when the contractions became less forcible.

As soon as the doctor returned, I urged immediate action. He proposed that he would administer the chloroform, and that I should operate, suggesting that I should bring the head down. As soon as the patient was under the influence of chloroform, I introduced my right hand without much difficulty, as the pelvis was ample and the soft parts dilatable. But, as I had anticipated, I could not bring the head down, although I had good hold of it. I then reached up in search of the feet, but owing to the firm contraction of the

uterus, I could not get my hand up higher than the hips, which I grasped, with my thumb and two fingers around the outside, and the index and middle fingers between the thighs; and after using considerable force, I brought down the breech. Turning it backwards, the contractions became more forcible and soon brought down the body; the head was easily extricated, and to my astonishment the child was alive, and weighing, perhaps, seven pounds. As soon as it was attended to and taken by the nurse, we turned our attention to the mother, and discovered that there was another child in the womb. In perhaps half an hour the pains came on again, when the second child was born in the natural way (head foremost), weighing, perhaps, six pounds. The first is a girl and the second a boy. This is the third time that the mother had twins; and so far as I know, all are living and doing well.

E. A. Oppelt, M. D.

Cannelburgh, Davisse county, Ind., March 28, 1885.

Incontinence of Urine.

Eds. Med. and Surg. Reporter:—

I am reminded, in reading in last week's Reporter the article on "Incontinence of Urine," of the following case, which, from the long duration of the trouble, and the marked melancholia developed on account of the depressing effect on patient's mind and the prompt relief afforded, leads me to report it:

Patient, aged twenty, male, had been suffering with that most unpleasant condition, "nocturnal incontinence of urine," for many years—in fact, as long as he could remember—making it impossible to leave home or accept any position which took him from home over night; was becoming morose and melancholy; general weak, flabby conditon of muscles, and of system in general. Had resisted all sorts of treatment, as patient's parents and himself stated. Placed him upon the following prescription, with immediate relief; and with the relief of the "incontinence" came relief of mind, and it was ample compensation for me to observe the young man brighten up, and suddenly see the bright side of life, and find that living was a pleasant thing; in fact, he rapidly developed into an active young man, accepted a position of trust, and bids fair to be a useful citizen and smart business man. The prescription consisted of the following:

℞. Tr. ferri chlor.,
Tr. nucis vomicæ, āā ℥ss.
Tr. cantharides, ℥vj.
Syr. simp., ℥ij.
Aquæ, ad. q. s. ℥vj. M.

Sig.—One teaspoonful three or four times a day.

It is now over a year since he came under my observation, and I am happy to state that the trouble has never returned. He took the above remedies about three months steadily.

Clarence G. Hollister, M. D.

Union City, Pa., April 12.

—A new remedy for migraine proposed by the French, is a decoction of the leaves of ményanthe, a plant of the family of gentians.

News and Miscellany.

Physical Culture.

In the chapel of the University of Pennsylvania, on Monday evening, April 13th, Dr. J. William White gave a most interesting lecture on "Physical Culture." He gave an interesting sketch of athletics among the ancients, and pointed out the importance which they attached to physical culture.

Referring to modern gymnastics, he said it was not till the beginning of the present century that physical training became systematized. In Germany and England a vast deal of attention is given to exercise and development of the muscles. In this country, although there are many excellent gymnasiums in the large cities, it is only at a few of the more important colleges that gymnastics are regarded as more than a pastime. That this is not the proper position of athletics in an intelligent community has become evident to all thinking people, but few realize the incalculable power for good which physical education, rightly understood, encouraged and applied, could have upon the human race in years to come. This association between physical, intellectual and moral strength is a natural one, unchangeable in its essential principles, though subject, of course, to individual exceptions. The idea of physical exercises as a training for the mind no less than the body lay at the foundation of Plato's views of the real function of exercise. It has been found at Harvard that students take about the same rank in required gymnastics that they do in their regular studies. Brain and nerve substance are behind every well controlled muscular movement, and the two are so closely connected that it is hard to tell what is due to the mind and what is due to the body.

The two most common arguments against physical culture are that it is not compatible with a proper degree of attention to the mental powers, and that athletics are usually harmful and productive of disease. The first of these objections may apply to the "professional," the man who gives up his life exclusively to the cultivation of his body. The records of science show an intimate association between brain power and bodily vigor. Dr. Beard claims that a hundred men of genius chosen by chance will be larger than a hundred dunces chosen anywhere, and that they will be hardier, taller and more weighty. The great point to be insisted upon is systematic, intelligent culture of the body.

The general principles involved in training, and which are seldom understood by trainers, are first, time. This is an important element in training, because of the increased work thrust upon the heart. Breaking down from what is called over-training is generally the result of an attempt to reach the desired bodily development in a few weeks. The enlargement of the chest and legs, the strengthening of the muscles and the expansion of the veins, cannot be safely accomplished in a short period. The second point is that training should never be limited to the particular form of muscular movement to be finally employed. Another important matter is diet. It should be

plain, and not contain an excess of either animal or vegetable food. Coffee, hot cakes, pastry, and pies, are not recommended. The only necessary caution as to the drinking of water is not to make the mistake of taking a dry, parched condition of the mouth for real thirst. It is always best to rinse the mouth before drinking. Tobacco, which has a direct effect upon the heart, should not be touched. Alcoholic drinks should be used sparingly, if at all. If symptoms develop during training which indicate that a man is physically unfit for the work, he should be retired, and, finally, it must be remembered that as it is dangerous to call the heart suddenly into action from a state of rest, so it often is harmful to return at once to sedentary habits.

The degree of strength and development are represented by physical examiners by a system of numbers based on a series of accurate measurements. In 1880 Harvard recorded the list of her ten best men. The total strength of her strongest men was represented by the figures 675.2, the best condition by 167.5, and the average condition of the ten men by 126.4.

"I have examined the students of the University of Pennsylvania. Our best man developed a strength of 890; condition 381.5. The average strength of our men was 517.65, and their average condition 300. The figures are based on the measurements of ten men. This is a remarkably fine showing for the University, and one of which we may all be proud."

Shall We Abolish Ventilation?

The *Lancet* facetiously tells us that "Mr. Baron Huddleston is trying a great sanitary experiment at the Royal Courts of Justice," and goes on to say: "It is one which will interest everybody, and we hope to be duly informed of the results obtained; indeed, we shall look for information with considerable impatience. The late Lord Derby is reported to have said in reference to some wine recommended to him as a preventive agaist the gout, that he preferred that disease to the beverage that promised immunity. Mr. Baron Huddleston prefers to be unventilated rather than have cool air blown on him from every quarter, under pretense of purifying the chamber in which he is doomed to sit. The engineer is enjoined, on peril of contempt of Court, not to ventilate Mr. Baron Huddleston's court any more. It will be curious to note whether the strictly local death-rate of that particular Court rises or falls. We should like to receive a weekly bulletin of health and mortality, countersigned by the judge himself. Will he oblige us? The stagnant atmosphere of this individual chamber might also be turned to useful account as the raw material out of which to manufacture a vast marketable supply of specimens of mephitic vapor. We trust the analytical chemists and physicists will not allow it to remain unutilized. It is a pity the idea is not to be carried a little further, and that a portion of the Royal Courts of Justice cannot be freed from the nuisance of drains, artificial water-supply, artificial lighting appliances, and so on. It might even be interesting to put the hands of the clock back in other senses, to try the effect of reversion to an earlier developmental type, so that the pristine glories and conveniences of a previous age could be studied in their entirety side by side with the so-called 'advantages' of modern applied science. We fear the idea is not altogether original. At the Health Exhibition insanitary houses were exhibited for comparison with the sanitary buildings and appliances which the public were to be incited to emulate. In olden times wise men made their slaves drink to excess as a warning to their sons. It has, however, been left to Mr. Baron Huddleston to exhibit a court of law in the Royal Courts of Justice in which 'ventilation is to be altogether abolished.'"

Deaths from Hurry and Exertion.

Some time since we published an editorial on "Running for Trains," in which we strongly advised all to "make haste slowly." From an English exchange, we now get the following corroboration of our views:

"A few days since, a railway clerk, aged twenty, was found dead in a sitting posture in a second-class railway carriage when it arrived at Woolwich. At the inquest it was stated that deceased had been suffering from heart disease for two or three years, and it was supposed that he had hurried to catch the train that morning. The surgeon who made the post-mortem examination stated that the heart was enlarged. Another case of death from exertion in a man suffering from diseased heart has occurred. A signalman at Brixton railway station, while pulling on the levers, suddenly fell backwards, and on the arrival of a surgeon was pronounced to be dead. The widow stated at the inquest that deceased had been treated for an affection of the heart for some time. In this case there does not seem to have been a post-mortem examination. Yet another death from exertion has occurred. A young lady, aged sixteen, expired suddenly in a gymnasium after performing a feat of skill. According to the medical evidence, she was suffering from valvular disease of the heart. How often has the hurry to catch a train, or some other sudden exertion, throwing extra work on a dilated, fatty, or otherwise diseased heart, resulted in fatal syncope! It is our duty to warn such patients of the risk they will run if they allow any consideration of business or convenience to tempt them to a single rash act of this kind.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended April 11, 1885.

Bailhache, B. H., surgeon. Chairman of Board for Physical Examination of Candidates for Appointment as Assistant Engineers, Revenue Marine Service, April 6, 1885.

Vansant, John, surgeon. Chairman of Board for Physical Examination of Officers of the Revenue Marine Service, April 11, 1885.

Purviance, George, surgeon. Granted leave of absence for one week, April 6, 1885.

Stoner, G. W., surgeon. Member of Board for Physical Examination of Candidates for Appointment as Assistant Engineers, Revenue Marine Service, April 9, 1885.

Godfrey, John, surgeon. To represent Service at annual meeting of American Medical Association, April 11, 1885.

Goldsborough, C. B., passed assistant surgeon. To proceed to Pascagoula, Miss., as inspector, April 8, 1885.

Carter, H. R., passed assistant surgeon. Member of Board for Physical Examination of Officers of the Revenue Marine Service, April 11, 1885.

Items.

—Dr. John B. Deaver, Demonstrator of Anatomy at the University of Pennsylvania, was recently presented with a set of lithotomy instruments by his class.

—A serious epidemic of whooping-cough has ravaged the islands of Suva, Fiji. The malady has carried off all the very young native children, and left a decrease in the population on the year of 3000.

—In a case of tubercular meningitis supervening upon lupus, Dr. Doutrelepont (*Deutsch. Med. Wochenschrift*, 1885, No. 7), reports the detection of tubercle bacilli in blood removed from the heart and jugular vein.

—The Keith Medal in the University of Aberdeen, instituted in the memory of the late Dr. Keith, has been gained by Mr. George Findlay. The subjects of examination are surgery and clinical surgery.

—Medical authority is tolerably well united in the opinion that cigars do not cause cancer. This, however, does not apply to the many alleged cigars which impose themselves upon a guileless people.

—The best safeguard against cholera, yellow fever, and every other species of disease, is cleanliness—cleanliness not merely of person and apparel, but of air, food, water, and habitation. It must be acquired and maintained—voluntarily if the individual will; forcibly, if the authorities must.

—According to the *Indian Medical Journal*, quoting from the *Mail*, the Madras Government has accepted a tender made by M. L. Cornet, of Pondicherry, for sinking an artesian well at Madras. The approximate cost of the undertaking will be 15,475 rupees. The necessary apparatus is to be brought from Paris.

—A man, aged 39, died recently, in the Birmingham (England) Workhouse Infirmary, whilst under the influence of chloroform-vapor, which had been administered to him for the performance of an operation for the cure of a subclavian aneurism. An inquest was held, and a verdict was returned of "death from chloroform, properly administered."

Before the Liverpool Medical Institution (February 19), Dr. Alexander showed a necrosed vomer and sphenoid removed from a woman, æt 30, who was taken to the Northern Hospital with a body sticking in the pharynx, and said to have fallen down from the skull. There was no obstruction of air passage. The bone, as it proved to be, was easily removed by the finger. There was a history of syphilis, and she had suffered from sore throat for seven years.

—F. D. Canfield, of Philadelphia, has published a little treatise on the manufacture and sale of Havana cigars, translated from the fifth edition of the original Spanish of F. H. Meyer, a former manufacturer. According to the author, the manufacturer does not sleep on a bed of roses, although, if once he make a reputation for his cigars, he is pretty sure to make a fortune. The pamphlet contains much curious information, some of which is not calculated to enhance the sentimental pleasure of smoking.

—Lightning has killed 4,609 persons in France alone since 1835. An equal number have been seriously, though not fatally, wounded, and five times as many struck. The hot years were the most fatal, and these are remarkable as having been the best wine seasons. There has not been a single death from lightning in Paris or the Department of the Seine since 1864, though there have been many violent storms there during that time. — *Bulletin de l'Association Scientifique de France.*

—In Egypt, Persia, and India, a seed called in Arabic *schimsch*, or *chischm*, and which belongs to a variety of cassia (*C. abrus*, L.), is used for the same purposes and in very much the same manner as jequirity is in Brazil. Schuchardt states that the efficacy of *chischm* is remarkable, especially in its control of inflammation and granulation of the conjunctiva, and in blennorrhœa. In use the seed, finely pulverized, is mixed with sugar, lard, or alum, or used pure. The method of application is not stated.—*Archiv. der Pharm.*

—Prof. Malgaigne was one day examining a candidate upon his doctorate thesis, and was annoyed at the very bad replies and ignorance of the student. "Well," he cried at last, impatiently, "make me one good answer; can you tell me what it is to create?" "To create," said the young man, readily, "it is to make something out of nothing." "Correct, monsieur, and in proof of it we are now going to create you a doctor." The application of this will be seen during the present commencement months.

—Plans have been prepared by the City Property Department for the erection of a permanent bath-house, in the Gothic style, at the western end of South street bridge, in this city. The new building will be built mainly of brick. It will be 160 feet long, with a clear width of 56 feet 6 inches. Two pools will be provided, with a length of 138 feet by 38 feet, one to be six feet and the other four feet in depth.

—The *Lancet* says that it has been asserted that the quality of tea may be approximately estimated by the weight of ash which it yields, the value of tea being inversely proportional to the ash. M. Nikatinski has lately, says *The Grocer*, made a series of experiments with the view of testing the truth of this assertion, and finds that the ash is a very fair index of the quality of the tea. Thus a good Shanghai tea gave 5.16 per cent. ash, a cheap green brick tea 6.87, and two Orenburg teas, which are known to be adulterated with rose leaves, and of which the price was 115*s.* and 48*s.* per cwt., yielded respectively 7.87 and 10.42 per cent. of ash.

THE

MEDICAL AND SURGICAL REPORTER.

No. 1470.] PHILADELPHIA, MAY 2, 1885. [Vol. LII.—No. 18.

ORIGINAL DEPARTMENT.

LECTURE.

SOME POINTS UPON DEFORMITIES AND THEIR GENERAL TREATMENT.

BY DR. CHARLES B. NANCREDE,

Professor of General and Orthopœdic Surgery in the Philadelphia Polyclinic and College for Graduates in Medicine.

Reported by Dr. A. B. Hirsh, Chief of Clinic.

Gentlemen: Endeavoring, as is the essential feature in the teaching of this institution, to avoid as much as possible the merely theoretical in surgery for that which is of direct bearing upon your practice, I will this morning confine my remarks to the general principles involved in managing deformities as a class. Their individual application you shall study in treatment of walking cases in our clinic here, and of bed cases at St. Christopher's and the Episcopal hospitals.

In cases of incipient deformity due to paralysis or paresis of muscles, the treatment should be instituted at once, since the opposing entirely or comparatively healthy muscles will, by keeping the weakened muscles overstretched, prevent the latter's recovering even that measure of contractile power that they otherwise would do. Remember, that a weakened muscle cannot keep up its nutrition, much less increase its strength, when kept constantly overstretched; it works at a great disadvantage, and eventually still further degenerates.

How long after the primary trouble and apparent loss of power can you successfully treat paretic club-foot? The question allows of no definite reply. I cannot say; but, you will remember, for example, Willie M——, whose trouble dated back at least ten years, and where, before tenotomy, some of the muscles *apparently* utterly failed to respond to either current, yet who has now regained a most satisfactory amount not only of electric, but even *voluntary* contractility. In this case we had cut the tendons of the contracture muscles, thus giving the overstretched weakened ones an opportunity to work at a mechanical advantage, and followed it up by massage, electricity, and the use of artificial muscles, which re-educated and prevented the overtiring of the paretic muscles. Artificial muscles (*i. e.*, rubber bands,) arranged as I have shown you, together with shampooing of the affected muscles, hot and cold douches, etc., have in the case of Louis H——, not only *prevented* the formation of club-foot, but have restored much power to the paralyzed muscles. Recognition of the cause of an incipient acquired deformity will prevent much future muscular and osseous change, as illustrated in the two cases I have already shown you.

The treatment of deformities beyond the prophylaxis, which I have mentioned, resolves itself into operations, manipulations, electricity, and the use of certain drugs. The operations resorted to are tenotomy, myotomy, and rupture of bony and fibrous tissues.

The general principles governing the operation of tenotomy are to put the tendon upon the stretch; to enter the tenotomæ flatwise, and to endeavor to make the incision more or less valvular. The instruments must be of the shapes which I here show you, viz., with a convex edge, with a concave edge, both blunt-pointed, and a straight sharp-pointed one. Moreover, the *back of the handles* should have some mark upon them

to enable you to judge in which direction the edge of your blade is aiming when buried deeply in the tissues. In cutting, say the tendo-achillis, you must introduce the sharp-pointed tenotome flatwise on the outer side of the foot, a little internal to the tendon. Having entered it through the skin, its point should be made to freely open the sheath of the tendon. If your blade will not, by direct puncture, make a large enough skin aperture, by using the back of the blade as a fulcrum, this opening may be enlarged. Withdrawing the knife, the probe-pointed one is introduced and carried to the other side of the tendon, which, put upon the stretch by an assistant, is thereby divided on pressing the knife-edge with a slightly sawing motion against the tendon, while the forefinger of the left hand steadies the structures and warns the operator when his blade threatens to perforate the skin. The tendon usually parts with a distinct sensation, and sometimes in older patients with a sound. The knife is now to be carefully withdrawn flatwise, the left forefinger following its track and pressing out any air that may have entered. A small piece of adhesive plaster, either alone or with a compress and bandage, is all that is now necessary. The division of the other tendons can be treated more satisfactorily when operating upon our next club-foot case, since the lecture pretends to deal chiefly with the general principle governing the treatment of deformities.

After dividing the tendons, fascia, etc., what shall we do further? Shall we leave the part in its deformed position, or shall it be at once rectified? The answer to this query depends upon whether we are operating upon a diseased joint or not. If, for instance, as in Johnnie L.'s case, the knee has been long contracted, and after division of the hamstring tendons I had forcibly extended the limb, I should have probably torn the skin across the popliteal space, the tear commencing at my cuts. I might, indeed, in this case have lessened this risk by making my punctures at the inner and outer sides of the knee instead of in the popliteal space, but I still should have run the risk of pumping air into the cellular tissue during my attempts at straightening the limb. Instead, you saw me place the limb in nearly its old position, trusting later to stretching after healing of the wounds—a procedure which I am glad to say has been crowned with success. In club-foot, however, of an extreme degree, after cutting all resisting tendons and bands, immediate forcible manual rectification and fixation with plaster-of-paris bandage will effect wonders, as in Willie M.'s case. Be careful *how* you perform this step, lest you set up suppuration; for, although this is almost unknown, it may follow tenotomy. Finally, when operating upon paretic cases, beware lest you set up the opposite deformity by overstretching, etc., thus converting a varus into a valgus.

The subject of the proper apparatus can be learnt better from seeing such upon the patient than from verbal description. You will understand, gentlemen, that my remarks are merely elementary and general, and that you must and can only learn their special application by clinical experience.

Communications.

FACTS SERVING TO PROVE THE CONTAGIOUSNESS OF TUBERCULOSIS; WITH RESULTS OF EXPERIMENTS WITH GERM TRAPS USED IN DETECTING TUBERCLE-BACILLI IN THE AIR OF PLACES OF PUBLIC RESORT, AND A DESCRIPTION OF THE APPARATUS.

BY W. H. WEBB, M. D.,
Of Philadelphia.

(*Concluded from page 520.*)

[COPY.]

DEPARTMENT OF WAR,
BERLIN, *August* 31, 1882.

The various detailed reports which, in pursuance with request of November 24, 1881 (No. 157, II., M. M. A.), have reached this Department, have clearly shown that there exists no material difference of opinion regarding the reasons for the high annual sick and mortality rate from consumption during the time of active service.

The universally-acknowledged causative relations will necessarily lead to still greater caution in the treatment and care of those exhibiting the earlier symptoms of chronic pulmonary disease, as well as those in whom a predisposition is suspected or clearly discernible. The prescribed regulations should therefore be borne in mind, in order that the number of consumptives in the army may thereby be diminished. The following instructions must always be carefully observed:

1. Although the predisposition to affections of the lungs cannot be objectively determined, and the time permitted the surgeon during the recruiting service often not extended enough to permit a careful and searching examination, to determine this question, the medical officer in charge is earnestly urged to consider the build, configuration, and exhaustibility of the thorax. In this connection he is to adhere closely to the instructions of April 8, 1877, regarding the normal limitations. Shoemakers and tailors (Oekonomiehandwerkern) of delicate frame require very careful inspection of the chest organs.

When the circumstances attendant upon the recruiting service are not favorable to exact examination, special attention is to be paid to more rigid inquiry when the recruit reaches his regiment, as directed in Par. 13 of the instructions. Here it will be of value, in forming an opinion in your cases, to seek direct official information regarding family history or previous disease of the lungs or pleura.

But in order not to lose sight of those cases which have either been overlooked at the first inspection, or whose character could not then be ascertained, the recommendation of the various corps-surgeons that, with the coöperation of the proper authorities, medical examinations should be repeatedly made at stated intervals, should be particularly borne in mind, with special attention directed to those in whom disease of the respiratory organs is suspected. Special records, carefully noting the condition at each examination, must be kept. The extent to which the weakly are to be spared the arduous work of training must be determined by the requirements of individual cases. The industrious use of douche baths, to harden the skin and accustom to exposure, naturally suggests itself here.

2. The attention of surgeons is directed to the fact that the instructions (Par. 5, Sec. 4, to Par. 7, Sec. 2) do not permit a judgment upon volunteers without considering their fitness for field service. Complete fitness, therefore, is indispensable to a declaration of efficiency.

3. For convalescents from acute disease of the respiratory organs, a prolonged period of after-treatment and care is desirable. If the circumstances of the patient make home attention attainable, and only then, is a lengthy furlough to be recommended. Those returning from such furloughs are to be carefully re-examined, and, if necessary, their transference to the appropriate health resort taken under advisement.

4. That the first symptoms of disease of the lungs may not be overlooked in making the round of the barracks, particular attention should be paid to apparently mild "catarrhs," utilizing, if necessary, evening temperature measurements. Doubtful cases should be transferred to hospital for observation.

5. The opinion of many medical officers, that prompt measures should be taken for the discharge of sufferers from chronic pulmonary disease, should not be forgotten. That even one attack of hemorrhage (Bluthusten), if it is proven to be of undoubted pulmonary origin, is sufficient cause for discharge, and is especially emphasized. That the early dismissal of cases affording no probability of usefulness to the service removes a source of infection for hospital and barrack, must be viewed as by no means the least important advantage of this provision.

Now that experimental pathology has furnished exact scientific corroboration of the theory of the infectiousness of phthisis, more importance than ever must be attached to the separation, both in hospital and barrack, of those afflicted with or suspected of phthisis, from other patients, especially from those suffering with inflammation of the lungs or recent bronchial catarrh. The sputum being the principal carrier of the disease germ, and consequently the principal source of infection, provision for its removal and disinfection (Unschadlichmachung) follows as a matter of course.

In answer to the question raised by this Department, as to whether new measures for the diminution of the number of cases of phthisis, with particular reference to the necessity for the establishment of climatic summer or winter stations for their treatment, were called for, the responses were unanimous against such establishment. The indications for them were considered uncertain, and the existing provision adequate for the present necessities of the army. The Department endorses this view, and is convinced that the careful observance of the general directions herewith transmittted will be of interest and service to the army as well as to the patient. Although tedious attempts at cure by long-continued stay at climatic stations may be considered of doubtful value to the phthisical patient, and not at all likely to furnish the army with a soldier fit for field service, the prompt despatch of a convalescent from an acute non-phthisical affection of the respiratory apparatus to an appropriate station, is warmly to be commended. Such station, from among those at the disposal of the Department, is to be carefully selected, and treatment conscientiously carried out.

This communication, with five copies, is transmitted to you, with the request that you submit your views to the General Commanding, and instruct the sanitary officers of the corps to be guided thereby. [Signed]

V. Lauer-Strube,

Department of War, Army Medical Division.

To all Royal Corps-Surgeons, No. 230, 4, 82, M. M. A.; 64, 9–84, M. M. A.

Like other disease germs, the tubercle-bacilli are carried by the air, and will, of course, be found to be more plentiful in the vicinity of the victims of tuberculosis. A single bacillus may as surely induce the disease as the presence of a great number; and since we are at no time free from the chance of inhaling this germ, our safety lies in avoiding a "predisposition" to lung troubles. In order to determine whether the bacilli might be readily found in the air of the street, or of places of public resort, I had constructed the instruments which I now show to you.

The first apparatus I had made was after the plan of the ordinary inhaler. The long tube passed into a little well at the bottom of the bottle containing glycerine, which was intended to retain any germs carried by the air passing through it; by rotating the bottle its sides were also smeared with glycerine, to give a still larger surface of glycerine for the contact of the air which, after entering the funnel, was forced through the apparatus by using the pump. This was undoubtedly an effective germ-trap, but the impossibility of drying the glycerine, which it was necessary to do in order to obtain microscopic

proof of the presence of bacilli, obliged me to devise another method of obtaining them.

The second trap consisted of a brass cylinder containing a series of snugly-fitted steel discs. Each disc was perforated in such a manner that, when placed together, the openings formed a cone. Between each of these discs, across their openings, thin layers of pyroxylin were placed; the discs were then introduced into the cylinder, which was tightly fastened. To one end of the cylinder the pump connection was affixed, and the other end was connected with the funnel, which was placed over the ventilating flue, to take the air. When the pump was put in motion it drew the air through the apparatus and necessarily through the veils of pyroxylin held in position by the metal discs, the pyroxylin thus serving to intercept the passage of any germs.

With this apparatus I visited a number of places of public resort, and through the courtesy of those in authority I was given free access to the parts of the establishments wherein the exit flues were located. These flues, in all instances except one, were placed in the ceiling of the auditorium and directly over the audience. Here I placed the funnel-shaped extremity of the apparatus and its pump was kept continuously in motion until fifteen or twenty minutes after the audience had retired. This experiment was repeated a number of times at each establishment I visited. The trap was then dismantled; the thin layers or veils of pyroxylin were removed from between the steel discs, and placed in the hands of Drs. E. O. Shakespeare and Morris Longstreth, for microscopic examination. These skillful microscopists have made the following reports:

PHILADELPHIA, February 3, 1885.

Dear Doctor: The specimens of pyroxylin (Nos. 1, 2, 3, and 4) which you sent to me to examine microscopically for the presence or absence of tubercle-bacilli, were variously treated. Nos. 1, 2, and 3 were separately dissolved in a mixture of absolute alcohol and strong ether. The collodion thus formed was handled in either of two ways: *a.* a thin film was deposited on a thin cover glass, such as is used in mounting of microscopic objects, and was stained in the manner recommended by Koch for the demonstration of the tubercle-bacillus; or, *b.* the collodion was excessively diluted in a test-tube, by addition of relatively large quantities of alcohol and ether, and then allowed to stand for some hours, in order that suspended portions might fall to the bottom. The fluid was then carefully drawn off. The sediment at the bottom of the test-tube was mixed with a drop or two of sterilized beef-peptone-fluid, such as I keep in stock for bacteria-culture use, and was spread in a thin film upon a cover glass. This film was also treated in the manner above-mentioned for the demonstration of the tubercle-bacilli. I had, however, considerable trouble in following these methods. There was great difficulty in decolorizing the film; many times this seemed quite impossible.

In these three specimens of pyroxylin I found no bacilli tuberculosis.

No. 4. I determined to treat in another manner. I employed two different methods: *a.* I took portions of the pyroxylin and stained it, as I would do sections of tissue in which I wished to seek for tubercle-bacilli, namely, in the manner recommended and practiced by Koch. Methyl-violet being the color used in the aniline oil mixture. These were subsequently mounted in balsam in the usual way, without converting them into collodion. *b.* Other portions of the pyroxylin were stained with fuchsin as the color of the aniline oil mixture. After staining in the usual way, including the methyl-blue as contrast color, the pyroxylin was placed on an object-glass slide for the microscope and converted into collodion by using a mixture of ether and alcohol. As soon as it was dissolved a thin glass cover was placed over it. This latter method, in my hands, was by far the most satisfactory.

In the portion of pyroxylin prepared by the "*a*" method I found two objects which, by their size, shape, and color, had they been isolated and seen in sputum, I would have taken for tubercle-bacilli; but these objects were attached to fibres of pyroxylin which, in spite of the successive action of weak nitric acid and of strong alcohol, and in spite of the subsequent use of Bismarck brown as a contrast color, was also tinted violet. This observation must, therefore, be classed as negative, or, at least, doubtful.

In the portion of pyroxylin treated by the latter method, "*b*," I found, after painstaking search, one bacillus, which, on account of its size, shape, and quite characteristic color (bright red, the ground being blue), I had no doubt was a tubercle-bacillus. There were two other rod-like forms which in size and shape appeared identical with tubercle-bacilli, but the color which they showed was so indistinct that it could not be safely made out. I have to report, then, the finding of one tubercle-bacillus in the specimen marked No. 4. There were, of course, numerous other objects in all the specimens examined, but as you wished only to know of the tubercle-bacilli, I have thought it needless to particularize concerning them. Yours very truly,

To Dr. W. H. Webb. E. O. SHAKESPEARE.

PHILADELPHIA, February 4, 1885.

Dear Doctor: In compliance with your request I enclose you the following report on the examination of pyroxylin from your germ-trap, in relation to the presence or absence of the bacillus of tuberculosis (Koch).

The material consisted of five small pledgets of cotton, contained in a small phial, sealed with paraffine.

The five portions were carefully kept apart and examined separately.

The staining method employed was that recommended by Koch: Aniline oil and fuchsin, bleaching with dilute nitric acid, washing with dilute alcohol, contrast stain with methyl-blue (in some slides), and washing finally in absolute alcohol.

The only variation made in this method of mounting as usually practiced was in using a dammar medium instead of Canada balsam, which I have employed, since I have found that the dammar hardens more rapidly than the other. The examination of the specimens can be made with the oil immersion lenses more promptly, without the risks involved in displacing the cover glasses, should the oil come in contact with the mounting medium. It was found by a preliminary examination that four of the five specimens of cotton were not likely to furnish any number of bacilli, and the further search among these four specimens was consequently abandoned.

The fifth specimen, labeled No. 1, engaged the sole attention of further examination, as it was composed of the cotton which first met the current of air as drawn through the trap.

The cotton was very much discolored by dust and other matter, particles of which could easily be shaken off from it. Care, however, was observed so as to lose as little as possible of these adhering matters.

The staining, bleaching, and other steps in mounting were carried out by first placing the cotton in a watch glass containing the aniline fuchsin stain and allowing it to remain, tightly covered, for twelve hours. Portions of the cotton were then thinly spread on a cover-glass, and the subsequent steps of the operation carried on in this position. It has been usual, I believe, in examining gun-cotton, to detect the presence of objects capable of being shown by a differential staining, to convert the cotton into collodion by admixture of ether and alcohol. This method I avoided, in the chief examinations, as being essentially faulty, since if the bacilli should be present in a dried film of collodion it would be impossible for the staining agents to come in contact with the micro-organisms buried in the depth of the film.

Very considerable difficulties and much tedious searching were encountered in the microscopic examination, owing to interlacing and overlying arrangement of the cotton fibres. For although the strongest pressure was placed on the covers which the glass would stand—and many specimens were lost in this manner—nevertheless the depth of the material presented a field of much confusion. The confusion was somewhat lessened, but not removed, by adding another step to the process of mounting, viz., by treating the cotton after staining and bleaching with a mixture of ether and alcohol, for the purpose of converting it into collodion. While this treatment dissolved the cotton fibres, still some fibres of flax and wool were left. It did not, of course, help the confusion due to large amounts of dirt particles which were present. It was hoped that by thus making a collodion of the gun-cotton, after the staining process was completed, some advantages might be obtained. Such, however, was not the case. The examination of six slides from specimen No. 1 gave the following results:

Slide a. 1 bacillus, 1 doubtful.
" b. 6 bacilli.
" c. 3 "
" d. 1 bacillus.
" e. none.
" f. uncertain.

It is not intended to convey the idea that these were the only bacilli present. A very careful examination might reveal the presence of more organisms. For the uncertainty of the examination excuse must be found in the nature of the materials dealt with: the impossibility of rendering the layer of material of uniform thickness, as can be readily done with sputa and with sections of tissue; the very large amount of dust particles scattered through a layer of considerable thickness; the facts, also, which I have not seen alluded to previously, that many fibres of cotton have in them clefts which retain staining material in spite of bleaching; many of these clefts closely approach in length and breadth the figures of the bacillus; and, finally, the short time which I have been allowed for the work since the specimens were placed in my charge for examination.

Yours very truly, MORRIS LONGSTRETH.

To Dr. W. H. Webb.

The layer or veil of pyroxylin through which the air from the flues first passed seems to have stopped the passage of all germs and other atoms, and in this way acted as a trap, to the exclusion of the other veils of pyroxylin placed between the discs for that purpose. Unfortunately, the portion submitted to Dr. Shakespeare for examination was not of the first layer, and to this may be attributed his inability to find more than one bacillus.

Furthermore, the number of bacilli found by Dr. Longstreth in the minute particle of the material he examined seems to indicate the presence of vast numbers of these germs in the entire layer removed from the trap.

And now, in conclusion, I desire it to be understood that I have spoken, not so much to maintain a proposition as to reveal the truth; and that in giving you the opinions of those who have beaten a path wherein we may the more easily travel, I have but done justice to a class of men equally endowed as ourselves to observe and to reason from cause to effect. I would also state that the aim of this paper is simply to emphasize facts, leaving you to deal with them as your wisdom may dictate. A careful analysis of the writings and investigations of those who have given special thought to the subject which I have treated, reveals the fact that since the time of Hippocrates there has been a gradual but steady progress towards the grand beacon which now illuminates our way. The very slowness of the advance, the suspicion with which the announcement of every new development has been received, and the earnest criticism to which they have been subjected, insures the safety of our position to-day. Apart from the ocular demonstration of scientific investigations of modern times, and from a purely clinical standpoint alone, the

weight of evidence as to the contagiousness of tuberculosis, must certainly be appreciated by you all. Even those who do not acknowledge it in words, proclaim it by their manifestation of doubt and quiet avowal, that there is something lacking which will enable them to fix upon the cause of a disease maintaining such marked characteristics from age to age, and among all people.

We are living in a scientific age, and the medical profession is thoroughly imbued with its spirit and import. We deal with facts, and are little inclined to give heed to that which is purely speculative. Such superstitions as the "Royal Touch" belong to a departed age. "Coincidences" and "Happened so's" serve no longer to answer our inquiries concerning the causes or nature of disease. Never before have we been so well established in respect to the means and methods of making research and experiments in the domain of medicine, and never before have the searchers after its truths been more earnest in their efforts or more hopeful of grand results. The discovery of the tubercle-bacillus is a scientific fact; all, with the same facilities, may see what others have seen. It is the one thing tangible, describable, known by its peculiarities among entities as readily as one individual is known from another. To doubt its existence in tuberculosis, is to doubt the utility of scientific medical research, and to abandon further progress to the unstable dreams of theorists. The sputa of the phthisical contain these germs; the air they exhale is loaded with them or their spores, and their introduction into the system of animals will always produce tuberculosis *while nothing else will*. These are not speculations, but demonstrable facts! Furthermore, clinical observations go to prove conclusively that healthy individuals, living in an atmosphere contaminated by the phthisical, will contract this disease, and not any other which might be due to a lowered vitality, from being in close quarters and breathing a vitiated air. That there is yet much to be learned in regard to the tubercle-bacillus, there can be no doubt. Still, having made a wide breach in the walls that hemmed in the mystery of tuberculosis, it behooves us to press on to its complete solution.

And, now, Mr. President and Fellows of the College, my remarks on the question at issue are, for the present, at an end; but I feel that I would be recreant to the cause I have espoused did I not avail myself of this opportunity to state that, in more than one instance, in articles recently published, the non-contagionists, it seems to me, have willfully, unhesitatingly, and without warrant, perverted the language, even absolutely falsifying the statements, of authors they quote in support of their cause. That such reprehensible practices should be resorted to, for what must necessarily be but a momentary triumph, is of itself strong evidence of the vulnerability of their position, and requires no word of condemnation from me; nor would I think proper to notice it at this juncture, were it not to point out the necessity for all conscientious investigators to verify every and all citations by referring, wherever possible, to the original documents. And if my feeble efforts have, in the slightest degree, advanced the cause of truth and humanity, my labor has not been in vain. Now—

> "Say as you think, and speak it from your souls."
>
> "What you do
> Still betters what is done."

THREE CASES OF IDIOPATHIC ANÆMIA, WITH REMARKS; AND AN ANALYSIS OF THE CASES HITHERTO PUBLISHED IN AMERICA.*

BY DR. J. H. MUSSER,

Of Philadelphia,

Chief of the Medical Dispensary, Hospital University of Pennsylvania; Pathologist to the Presbyterian Hospital, etc.

In addition to placing on record the three cases of idiopathic anæmia which it was the writer's good fortune to be able to study, the object of this paper is to call attention to the work that has been done in this disease by the medical profession in this country and Canada, and to arrange this work in compact form, for the purpose of analysis and of comparision with the series of cases that have been recorded in other countries. By this means it is hoped the character and nature of the disease, as seen among us, may be more broadly and clearly defined. Furthermore, it seems that the work that has been done has not been sufficiently appreciated in other countries to deem it worthy of the notice of their authors. For, save in but a few instances, they have not at any time referred to our countrymen's labors. It is hoped this subjoined collection of cases, therefore, will show that we are perfectly familiar with the disease, and keenly appreciate its obscure pathology and difficult treatment.

By idiopathic anæmia, it is to be understood, we mean that form of profound anæmia which de-

* Read before the Philadelphia County Medical Society.

velops independently of any organic lesions; which is generally "progressive," and too often "pernicious;" which is characterized by diminution in the number and changes in the appearances of the red corpuscles; by retinal and other hemorrhages; by fever at times; by the absence of emaciation; and the occurrence of extreme fatty degeneration of the heart, and which yields no sufficient evidence after death to explain the cause of the disease. Some authors would have us believe it is only a grave form of chlorosis, or a pseudo-leucæmia of the myelogenic variety, or a grave anæmia not to be distingushed from the secondary anæmias.

We are wanting the time to show the differences between these affections, and will only say we believe that idiopathic anæmia is as capable of distinction, clinically, from other anæmias as is one form of Bright's disease from another, and that, in the absence of proof that the bone-marrow changes are not secondary, it cannot be called pseudo-leucæmia. It cannot be compared, as Quincke would have us do, with uræmia or jaundice. There is something back of these symptoms which is the disease. And, so with idiopathic anæmia; although the blood-changes and the resulting tissue changes are allied in all fatal anæmias, yet back of these are circumstances and conditions which go to make up the different diseases. The application of these remarks is only temporary, for sooner or later, as our knowledge of the blood increases, the fundamental cause of idiopathic anæmia will be determined, and the expression idiopathic will be improper and eradicated. The following cases illustrate well this form of anæmia:

Case 1.* Idiopathic anæmia; no organic cause; no emaciation; retinal hemorrhages; reduction of r. c.; analysis of blood and urine; fatty heart.

K. McC., fem., white, æt. 42, was born in Cumberland Co., Pa. She resided in this county until 16 years old; since then she lived in Philadelphia until her death, with the exception of a few months spent in Harrisburg, Pa. Previous to her marriage, which took place at 17, she led a life of ease; since then, however, although her duties were those of housekeeper only, she worked very hard. Her first husband lived eight years after their marriage; he died of chronic Bright's disease. After an interval of six months she remarried, and has since lived with her husband. She became pregnant once only by her first husband, but lost her child by premature labor; she never conceived thereafter.

Mrs. McC. never suffered on account of deprivation of food or life's ordinary comforts; her last husband kept a saloon, and was of somewhat dissolute habits, so that this latter period of her life had been one of care and anxiety; her habits, as far as can be ascertained, were good.

The father of our patient died of an acute illness; the mother is living at seventy-two, and quite active; her brother and two sisters are likewise in good health; there has been no hereditary tendency to disease.

A woman of considerable personal beauty and fine physique, she never had been sick until the development of the present illness. It is true, in childhood she had the specific fevers incident to that period, but the attacks were light and never followed by serious sequelæ. She never had malaria, and no knowledge of venereal disorder could be obtained. Menstruation had always been regular, though scanty and painful, and she believed the "change" had taken place one year previous to this note, attributing a parasthæsia to that cause. Within the year she menstruated twice, the first time seven months ago, the last time four months ago; the latter period was attended by a rather profuse flow.

The cause of the breakdown in Mrs. McC.'s health was attributed to shocks which occurred five years prior to her death. Her husband, while under the influence of liquor, abused her frequently, and once was about to kill her but for timely interference by friends. For many weeks afterwards she suffered the highest degree of mental excitement, so extreme at times, it was feared insanity would ensue. Thenceforth her health was poor, and gradually the anæmia developed.

The course of the disease can, it appears, be divided into three stages or periods. The first period continued from the time of the shock until about one year previous to the time she came under my care, or January, 1881; the second period continued from January, 1881, until about December, 1881; she then became so ill as to be unable to leave her bed, and came under my observation in January, 1882; this third period was of seven weeks' duration, and terminated by her death, January 19 of the latter year.

The first period was marked by ill-defined poor health. She knew that she was losing ground, but could not tell how. She did not emaciate, but weakened. She lost her hair, and it changed from a brown color to an iron-gray.

* Abstract Case in Trans. Path. Soc. of Phila., xi., p. 66.

The symptoms of the second period were more defined. They were change of color, of disposition, of strength, etc. The complexion—originally clear, with rosy cheeks—became sickly and dirty yellow. She became irritable, fretful, and morose, contrasting with her previous good disposition. In the early part of this period, she had an attack of daily intermitting fever, with headache, lasting ten days. She lost her appetite; or if present, it was quite capricious. In February and March (1881), attacks of vertigo, faintness, and vomiting, occurred twice or thrice daily; consciousness was never lost in them; they occurred after exertion. Failure in strength became more and more pronounced towards the close of the year; inaptitude for exertion, either mental or physical, and a growing heedlessness of friends and surroundings, became marked. From the first of this period, numbness and tingling, and an increased sense of weight in the limbs, were noticeable and distressing.

The third period of illness of our patient was marked by extreme exhaustion. On account of sheer prostration, of palpitation of the heart, and extreme dyspnœa on exertion, she was obliged to take her bed.

In addition to the preceding history, the following notes of her condition were gathered during the three weeks of my attendance:

External Appearance.—Hair soft, thin, iron-gray. Eye-lashes and eyes brown; eye-lids puffy; conjunctiva pearl-white color; subconjunctival fat increased, especially in inner canthus, and quite icterode in hue—at first sight, considered to be due to bile pigment. Face not emaciated; appearance strikingly ghastly and wild; color, dirty-yellow or earthy. Lips pale. Appearance of extreme bloodlessness of face and hands. The latter not pigmented. Finger-nails grew rapidly, but were brittle, and had white spots on them. Skin warm and oily; that of the hands wrinkled, and in the palms hard. Ankles and feet slightly œdematous. Body not emaciated, though not as plump as in early years. Muscles flabby. Mammary glands well-developed.

General Symptoms.—Prostration; general aching, especially aching of the muscles of the neck; frequently said, "Feels as if head were separated from body." Marked tenderness on pressure of ribs and lower part of sternum. At nights, a moderately profuse perspiration occurred. Temperature recorded usually once daily, often morning and evening; the average was 98⅕° for the a. m. and 99⅖° for the p. m. temperature. Towards the end of life, coldness was complained of bitterly, and the extremities were quite cold. Extreme restlessness was observed the last days of patient's illness, especially tossing of arms and rolling of head.

Cerebro-spinal Symptoms and Alterations of Special Senses.—Mental faculties clear, but acts sluggish. Slow responses made to questions, and the recalling of events almost impossible. Towards the close of life, readily lost the thread of any discourse, and mind wandered. The delirium was low and muttering, and attended with emotional displays; at times crying, then laughing gayly. The delirium first developed acutely six days before death, preceded by an attack of semi-consciousness, and accompanied by thick, indistinct speech. The slight loss of consciousness was of four hours' duration, and was followed by headache. Three days preceding death, an attack of aphasia of a few hours' duration occurred. The last day of her illness, stupor was marked. Noises in the head, throbbing sensations, and ringing of the ears, were distressing for many weeks. She first complained of disturbed vision, January 2. Muscæ volitante were constant, feeble and double vision marked. An ophthalmoscopic examination, January 11, 1882, by Dr. G. A. Piersol, showed the following:

Right Eye: Disc pale, its inner and lower margin indistinct; entire retina slightly cloudy and hazy; vessels of eyeground abnormally pale; arteries on disc and throughout their course reduced in size; veins engorged, but of pale color; near disc, to inner and lower side, several small hemorrhagic spots, bright red. Refraction hypermetropic; media clear.

Left Eye: Disc pale, with some haziness, especially on nasal side; slight veil over entire fundus; vessels abnormally pale, arteries attenuated, veins congested; numerous hemorrhages in form of small streaks along course of vessels to nasal side of disc; large, yellowish-white, irregular patch, with several small hemorrhagic patches about its margins. Refraction hypermetropic; media clear.

Gastro-Intestinal Symptoms.—Tongue generally furred, teeth good, mouth dry and sticky or pasty; a thick, viscid saliva constantly discharged. No hemorrhage from gums, but during the three days preceding death, sordes collected on teeth, tongue, and lips. Mucous membrane of mouth pale; no bronze patches. Pain and tenderness in the epigastrium, with pulsation of abdominal aorta. No nausea or vomiting. Loss of appetite. Pain and some slight flatulency after tasting food. Bowels always constipated.

Spleen and liver normal in size. Abdomen not scaphoid.

Pulmonary Symptoms.—Dyspnœa, which was an early symptom, became agonizing; at first on exertion, it became marked in the recumbent position also. Attacks of dyspnœa occurred frequently. Sighing was constant, but Stokes-Cheyne respiration never present. The respirations the first week were twenty-five to thirty per minute; the last two days they were forty, due to an œdema of the lungs, which gave the usual physical signs: otherwise the lungs were normal.

Circulatory Symptoms.—Cardiac palpitation on the slightest exertion or emotional disturbance, and attacks of syncope were frequently complained of. The pulsations of the large vessels were annoying. On physical examination, apex beat of heart in normal position, scarcely visible impulse, or impulse detected by palpation. Carotids throb visibly in neck; veins pulsate; aorta at sternal notch readily felt. No cardiac or vascular thrill. No increased area of cardiac dullness. At apex of heart, at pulmonary and aortic orifices, loud systolic murmurs. The murmurs at aortic cartilage heard also in carotids. Loud venous hum in jugulars. Pulse small and compressible, not over 80, until day preceding death. No hemorrhages were known to take place in any part of the body save retinæ.

Examination of Blood.—Secured with difficulty by puncture, liquid and pale in color. On microscopical examination, red corpuscles diminished in number; no rouleaux formed; innumerable small corpuscles, dark in color, and appearing like oil globules (microcytes); most of the red cells are flat, some float on their edge; size varies from the microcyte to the normal red cell. No large or nucleated corpuscles seen. With Gower's hæmocytometer, 715,000 red and 15,000 white cells were found per cm. Color of cells paler than normal.

Genito-Urinary Symptoms.—None were noticed save the passage of an abundance of urine, and, the last four days, of its passage involuntarily. Urine of January 4, analyzed by Dr. John Marshall:

Sp. gr., at 15° C.		1014
Urea	2.3	per cent.
Sodium chloride	.12	per cent.
Phosphoric acid	.13	per cent.
Uric acid	.087	per cent.

No albumen or sugar.

Urine, January 6, pale red color, normal odor, acid, sp. gr. 1010. Scarcely any sediment; on microscopical examination contained pus-corpuscles and granular matter.

Autopsy, sixteen hours after death, assisted by W. E. Hughes, M. D.

Body of a large-framed woman. Not much, if any emaciation; panniculus adiposis well developed over abdomen. Skin extremely pale, with earthy hue of face. Petechiæ on back of hands and upper surface of feet. No post-mortem staining. Rigor mortis well marked. No enlarged superficial glands; scar of an old suppurating one in groin. No cadaveric odor.

Brain.—Not examined.

On section, muscles normal color. Large layer of bright yellow fat over the abdomen. Abdominal organs occupied normal relations. The omentum covered and contained its usual amount of fat. The small intestines were much contracted; the colon filled with fæces. The stomach occupied its normal position and contained gas. The mesenteric glands were somewhat enlarged. The thoracic cartilages were not ossified, and on breaking the sternum a dark red grumous fluid exuded. The right lung was bound down at the apex by adhesions, while in the lower part of the pleural sac there was one-half pint of serum. A calcareous mass was felt in the apex of the left lung. Both lungs were œdematous.

Sympathetic System of Nerves.—On account of the bloodlessness of the organs and the small amount of discharges, the nerves were very distinctly seen—both filaments and ganglia. On microscopical section, the ganglia were normal, a slightly granular appearance of the nerve cells and some pigmentation of them and the nerve fibres alone being found.

Heart and Blood-Vessels.—Pericardium healthy; sac contained usual amount of serum. Underneath parietal and visceral layer, small ecchymoses. In pulmonary vein, black clot; in aorta and pulmonary artery, a soft yellow clot; in the venæ cavæ, soft red-brown clots with black specks or granules intermingled. The heart was pale, soft, flabby, extremely fatty. The degeneration was more marked on the right side; along the septa and the vessels there were areas of capillary injection. The right auricular wall was very thin, strands of muscular fibres being replaced by fat, while other strands seemed to be destroyed, so that parts of the wall were transparent, connective tissue forming the limiting membrane. The left side was similarly affected, but not in so intense a degree, there being only a diffuse yellowish discoloration. The papillary muscles of both sides were markedly changed: the fatty change was recognized by innumerable yellow dots. The right heart contained soft semi-

fluid, red blood clots; the left soft yellow clots. The aorta was a centimetre in width at the heart, and at the cœliac axis admitted the little finger only.

Organs of Abdomen.—Liver, enlarged in both lobes, with thickened edges; innumerable small ecchymoses underneath the capsule, especially along edges; fatty mottling of surface; on section, the organ was bloodless, the veins gaping and empty, markedly fatty to the naked eye—corroborated by microscopical examination.

Spleen, normal or but slightly enlarged; surface rough; on section, dark brown and hard. *Pancreas* apparently normal.

Stomach, slightly dilated, filled with mucus and liquid food; some mammilations and numerous submucous extravasations; pyloric orifice much contracted. *Supra-renal* capsules normal; on microscopical examination, a slight increase of interstital tissue with lymphoid infiltration was seen; vessels engorged with blood; cells pigmented and slightly infiltrated with fat.

Diaphragm, very thin, and to the naked eye, fatty; in parts, apparent streaks of fatty degenerated fasciculi were observed.

Genito-Urinary Organs.—Uterus and *ovaries* normal; left *kidney* enlarged, removed readily on account of the absence of fat around it; capsule adherent, and on section cortical portion pale yellow or granular, and of narrow width; pyramidal portions very pale or yellow-white; right kidney more congested than the left; otherwise, appearance about the same; pelves of both kidneys filled with fat; bladder full; mucous membrane pale.

Bone Marrow.—Some removed from radius and sternum; the marrow of the radius was pale yellow in color, and on microscopical examination, revealed the appearances of healthy adult marrow; the same may be said of the sternal marrow.

Blood.—Twenty-four hours' standing in a beaker did not cause clotting; in the bottom of the beaker a thin red film was seen, of coagulated matter; microscopical examination revealed the same changes found during life. Chemical examination by Dr. John Marshall, Demonstrator of Chemistry, etc., University of Pennsylvania. With the record of the examination is added the results of the examination of the blood of healthy females for comparison. It will be seen there is a diminution of the amount of albumen in our case, there being 11 parts in the 1000 less than in health. Inorganic salts, including iron, exist to the amount of 7.15 parts in 1000 in health; fatty matter, extractives and salts are represented by 9.01 parts per 1000; deducting the former from the latter figure, leaves 1.86 parts to represent the amount of fats and extractives. Our analysis shows an increase of these constituents to 2.18 parts. An increase is also seen in the inorganic salts; salts and iron equal 7.15 parts, iron equal .54 parts—the remainder, 6.60 parts, equals the amount of salts per 1000 in health; an increase of .64 parts is seen in these constituents, therefore (7.24—6.60=.64). As would be expected, the greatest change is in the amount of iron; analysis shows that .54 parts in 1000 represents the amount of iron in the normal blood on an average. Dr. Marshall found but .18+ parts in this case, or a reduction of two-thirds. The fibrin in our case was increased, a circumstance contrary to what would be expected or had been reported. A study of the many tables that Coupland presents in his admirable lecture, shows that the amount of this constituent is an extremely variable factor.

(*To be continued.*)

Hospital Reports.

LECTURES ON INSANITY.

Delivered at the University of Pennsylvania,

BY CHARLES K. MILLS, M. D.,

Lecturer on Mental Diseases in the University of Pennsylvania; Consulting Physician to the Insane Department of the Philadelphia Hospital; Neurologist to the Philadelphia Hospital; and Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic.

Reported by WILLIAM H. MORRISON, M. D.

LECTURE III.

Mania—Definition of Mania—Varieties—Cases—Diagnosis from Diseases not Psychoses—Prognosis—Treatment—Attendants, Food, and Air—Baths—Bromides—Chloral—Cannabis Indica—Conium—Hyoscyamia and Hydrobromate of Hyoscine.

GENTLEMEN: Mania is a form of insanity characterized by extreme mental exaltation, particularly in the sphere of the emotions. In mania the patient loses self-control, and usually has insane delusions or delusive ideas. The mental exaltation shows itself in excessive emotionality, in over-ideation, and often in physical excitement or violence. The ego expands. The brakes are off, and the mind runs riot for the time being.

The term mania should not be used loosely, as it is sometimes, to indicate insanity in general, or almost any form of insanity, but should be applied only to cases in which emotional exaltation is the dominating feature.

Mania can be conveniently subdivided into four forms, as follows:

1. Common acute mania.

2. Acute delirious mania.
3. Acute transitory mania.
4. Chronic mania.

Common acute mania is the form most frequently seen in practice. It is a condition in which the patient has, comparatively speaking, a moderate amount of morbid exaltation. This may, and frequently does, take the form of gay or joyous emotion. The patient may laugh, or crow, or shout, or dance. In other cases the symptoms may assume a sorrowful, or a destructive and dangerous form. An exaggeration of all the immoral and mischievous peculiarities of the individual may then be exhibited.

In acute delirious mania, the maniacal manifestations exist in the most violent form. Here, the patient is thoroughly incoherent; he is never still. Wild volubility, violent gesticulation, restlessness which is incessant, filthiness of the vilest character, rapid pulse, elevated temperature—these are the features of this frightful disorder. It is the "raving mania" of the popular mind, but a much rarer disorder than the people generally suppose. Sleeplessness is of such a character that nothing will control it. Patients frequently die, who have not slept for days or even weeks.

In acute transitory mania, the patient up to a certain time is in comparatively good health, when suddenly—it may be with cause or without apparent cause, an attack of mania ensues. Exposure to the sun will sometimes cause this form of mania, instead of producing ordinary sunstroke. The storm soon passes over, leaving the patient apparently well. Acute transitory mania never lasts longer than from one to two days, and may last only a few moments or an hour or two. Lasting beyond a day or two, it would properly receive the designation of common acute mania, or if violent enough, of acute delirious mania. The existence of such a form of mental trouble has been denied. You can at once see the importance of this from a medico-legal aspect. It has been denied in some famous trials, both in this country and abroad; that is to say, in cases of homicide, the defense of acute transitory mania has been made, and the existence of any such form of insanity has been scouted. The best alienists, however, agree that there is such a form of insanity.

In epilepsy, not infrequently attacks of acute transitory mania occur. A form of insanity sometimes precedes the paroxysms of epilepsy, another sometimes follows the paroxysm, and occasionally epileptic patients will be seen who have sudden outbursts of terrible mania, in which they become dangerous and uncontrollable. These are supposed to be scientifically what are termed psychical equivalents of the motor-epileptic attack, that is, the patient has a mental epileptic paroxysm instead of a motor convulsion.

Acute transitory mania is not, however, necessarily epileptic transitory mania. I refer to these epileptic insanities simply to illustrate. I believe in a disease independently of epilepsy, in which the patient is stricken with maniacal excitement which passes away in a few hours.

Some confusion exists in the minds of physicians in regard to the form of insanity known as chronic mania, which confusion has arisen partly from the way in which, for convenience sake, cases have been labeled "chronic mania" in asylums. Up to a recent date, and even yet in many institutions, nearly all of the asylums had a very simple way of classifying their cases of insanity. The cases were all classed under the heads of mania, melancholia, and dementia, with probably some few special forms. Under the head of mania were placed certain cases which could not conveniently be assigned to any of the other classes, just as doctors, not alienists, sometimes find it convenient to label cases "marasmus," or "biliousness," or "neurasthenia," when they cannot think of anything better to call them. The term chronic mania should, however, be applied to a certain series of cases which show a persisting mental condition of moderate exaltation, with intervals at least of greater excitement. These cases are probably cases of chronic delusional monomania of the ambitious type. Cases of chronic melancholia, and some of the milder forms of dementia, are not unfrequently placed under the head of chronic mania. The term should be restricted to those cases in which some marked emotional disturbance persists for years—for eighteen months to two years at least. In the majority of instances, the term should be applied to cases of a secondary form, that is, those in which the disease began as acute mania. Chronic mania usually passes eventually into dementia.

Spitzka, some years ago, in a journal article, considered it necessary to describe a distinct form of chronic mania, as chronic mania with imbecility; but in his recent text-book, he does not make of this a separate class.

A good illustration of common acute mania was A——, aged forty, admitted to the Philadelphia Hospital with a broken femur. The mania developed almost suddenly a few days after the accident. The broken leg complicated, and yet, perhaps, also simplified his treatment, as it made it absolutely necessary to use restraint, both mechanical and chemical, as well as to give the patient the closest personal attention. He was a moderate drinker, and a man of fair intelligence. He slept little, but was not absolutely sleepless. He was constantly, when awake, in motion with his hands, if they were not confined. He made frequent efforts to masturbate. He talked and shouted. He was usually joyous and good-humored, although at times profane and obscene beyond description. Any one coming into the ward or speaking to him was greeted with shouts, or oaths, or obscene jokes. He would crow like a rooster by the half hour; then laugh, or scream, or sing, or swear. He never complained of pain in his leg, or elsewhere. He paid no attention to his evacuations. When at his worst, his pulse was frequent, and his temperature slightly elevated. Fortunately he could be fed without much difficulty. Bromide of potassium and chloral, and fluid extract of conium were the drugs chiefly relied on in his treatment. He made a good recovery, both from the fracture and mania.

Not long since, I was called in consultation to see a case which, beginning as one of common acute mania, rapidly passed into true delirious mania. The patient was a young woman of excellent character, twenty-five years old. She was a little odd and excitable for two or three days,

and then became maniacal. When I saw her she was in bed, talking or laughing and screaming incessantly. Every now and then she would leer and wink. She was at times vulgar and profane, although when well always exemplary, both in conduct and language. She would often pick up the last few words of anything that was said, and repeat them over and over again, sometimes with a little variation. For a time, she would continue shouting the same phrase, as "Don't you know?" She showed some tendency to rhyme, repeating such expressions as "Cricket, that's the cricket, and the ricket." She was continually tossing about, jumping up and down, if allowed. She had no fever. Bromides and chloral did little good. Hyoscyamine controlled her for a time. I saw her but once, but learned that she died from exhaustion, after changing physicians two or three times. She would possibly have done better in a hospital, with trained attendants and an unwavering plan of treatment.

In 1883, a colored man, 30 years old, was admitted to my wards in the Philadelphia Hospital. He had been brought to the hospital from a station house, to which he had been carried the day before [illegible] ked and bound hand and foot. At the station house he was unconscious of his surroundings and even for an hour or two after admission to the hospital he was in a half-dazed condition. He could not give any clear account of himself, except that he had been all right the day before, but during the evening or night something had happened to him. His friends stated that he had suddenly gone "entirely out of his head." In the seizure he was incoherent and violent, biting, striking, and screaming. He had to be seized and held, to prevent him injuring himself and others. His clothes were torn from him in the struggles to restrain him. About one year previous to this attack, he had had a similar outbreak of great violence, and also a few weeks later a slight attack. He had some dull headache the day of admission to the hospital. When a child seven years old, he had had a convulsion; but there was no other history of epilepsy. He had not had attacks of petit mal. He remained under observation several weeks, perfectly sane, and not showing any signs of epilepsy.

This case may be regarded as one of acute transitory mania. The occurrence of these seizures and the history of a fit in childhood would give color to the idea of an epileptic origin. I believe, however, as I have already said, in the existence of a transitory mania not epileptic in character; but I regard it as a rare affection.

In our visits to the State Hospital for the Insane at Norristown, and to the Insane Department of the Philadelphia Hospital, I have shown you a nmmber of cases of what might be properly termed chronic mania. These patients, as a rule, do not sleep as well as others of the chronic insane. They are restless; sometimes raving and quarrelsome. They have spurts of mental exhilaration and motor activity. Under the excitement of visits from strangers, they sometimes become more excitable and aggressive. They may have hallucinations and delusions, but they are usually imperfectly expressed and wanting in systematization.

It will not be in place to say anything about the differential diagnosis of mania from other forms of insanity, until other mental disorders have been considered.

Mania, however, is sometimes confounded with other forms of disease not insanities, such as cerebral meningitis, acute alcoholism, the incipiency of typhus or typhoid fever, hydrophobia, etc. In meningitis, sooner or later some of the following symptoms will appear: headache, fever, vomiting, vertigo, photophobia, cutaneous hyperæsthesia, spasm, paresis, increased reflex excitability, respiratory affections, and disturbed consciousness. Mistakes are only liable to occur through the violence of the delirium masking the other symptoms of meningitis. In acute alcoholism, tremor and peculiar hallucination of sight and hearing will usually be present, to help, with the history, to decide the diagnosis. In one case of typhus, and in two of typhoid fever, almost typical maniacal symptoms were the first manifestations. This, I believe, is rare; but it should be borne in mind. I am satisfied that a few of the cases reported as hydrophobia are really examples of either acute mania, or hysterical mania.

It is sometimes important to distinguish mania from the simulation of insanity. Mania and dementia are the forms of insanity most likely to be selected by the simulator. The mania will be overdone for a short time; but the sleeplessness and excitement cannot be kept up without cessation for days and weeks.

Many cases of common acute mania recover. Most cases of acute delirious mania die. Cases of acute transitory mania usually recover, and most of the studied cases have had but one attack in a lifetime. Cases of chronic mania commonly pass into fatuity.

Acute mania can be treated at home, if well-trained nurses, and suitable accommodations can be had. In nine cases out of ten, members of the family will not answer.

Strict attention should be paid to the diet and amount of nourishment taken by maniacal patients. While such patients are not usually in as much danger of starving as melancholiacs or stuporous cases, they sometimes refuse food, and thus add to the danger of exhaustion from over mental and motor activity. Food in such cases, owing to the troublesome character of the disorder, is likely to be taken irregularly both as regards time and quantity. The physician should see to it that a certain definite amount of nourishment is given every day. Even forcible feeding, by means of tubes passed either through the nostril or mouth, should be resorted to if necessary. Speaking of cases of acute mania, Clouston says: "To show the quantity of food that such patients can take and digest, I mention that at the asylum I am never satisfied except the bad cases get at least six eggs a day, beaten up in liquid custards, in addition to their ordinary food, beef tea, etc." Milk, beef tea, soups, rice, etc., are useful.

Patients must not be deprived of fresh air. In delirious cases the rooms must be well-ventilated. Other patients should be taken out of doors whenever possible. Baths, preferably warm, or warm baths with cold to the head, do well in some cases.

Bromide of potassium and chloral, in doses of from 20 to 40, or even 60 grains, and bromide of

potassium, with tincture of cannabis indica, are two valuable medicinal combinations for insomnia and delirium. Tonics, such as quinine and iron, must be used sooner or later in all prolonged cases.

Both in private and hospital practice, I have found conium used after the method recommended by Kiernan* and others of great value. A reliable fluid extract (such as Squibb's) should be used. If it can be had, the alkaloid conine, or one of its salts, may be tried. The ordinary dose of the fluid extract of conium in non-maniacal cases is from three to five minims; but in acute mania, if no special contra-indications are present, a dose of from fifteen to twenty minims, or even more in rare instances, may be given; and subsequently the patient should be kept under the influence of the drug, five to ten minims, being administered every one, two, or three hours. Conium has a very marked effect in subduing motor excitement; and insomnia and delusions also sometimes disappear during the time it is being taken.

In the case of a young lady brought to me from the interior of the State, I gave the fluid extract of conium for four weeks with the happiest effects; at first in large doses, but gradually diminishing, using enough, however, to keep the patient continuously under the influence of the drug. The only other medicine employed was bromide of potassium, in doses of thirty grains at night, and this only a few times. A full quantity of food was given, sometimes force being required both to give food and medicine. The patient entirely recovered.

In another case of common acute mania, not as severe in type as the one just alluded to, the patient was given four to six times daily a prescription containing bromide of potassium, grs. xxx.; fluid extract of conium, ♏ vij., and Fowler's arsenical solution, ♏ ij., the formula being similar to that used by me for epilepsy, except that the conium was given in larger doses than is usually ordered for epilepsy. Strict attention was paid to feeding. This patient also recovered.

During the last few years, hyoscyamia or hyoscyamine has been much used in the treatment of acute mania. I have used it in private practice, and have observed the effects of its administration in two public and in one private hospital for the insane. In cases not too much reduced in strength by disease, it is of value in calming maniacal excitement. One strong objection to hyoscyamine as usually sold is its somewhat uncertain strength; an amorphous alkaloid is generally employed. It has been used both by the mouth and hypodermically, in doses varying from the $\frac{1}{10}$ to the $\frac{1}{100}$ of a grain.

Hyoscine is an alkaloid derived from amorphous hyoscyamia. The results of some physiological and therapeutical experiments with one of the salts of this alkaloid—the *hydrobromate of hyoscine*—have recently been published by Dr. H. C. Wood.† Physiologically he concluded that hydrobromate of hyoscine acted on mammals "chiefly as a spinal depressant; that it is a centric, respiratory depressant, causing death by asphyxia; that it has very little effect upon the circulation, what influence it exerts being in the normal animal set aside by the asphyxia it produces; that it does not paralyze the pneumogastric; that in enormous doses it paralyzes the vaso-motor system; that on the heart itself its influence is very feebly depressant." In brief, it may be stated that therapeutically it was found useful, either by the mouth or hypodermically, in doses of $\frac{1}{30}$ to $\frac{1}{100}$ of a grain in cases of mania, or in the maniacal stage of other forms of insanity.

I have recently observed the happy effects of hydrobromate of hyoscine in three cases, two of acute mania, and one of melancholia agitata. In two of these cases it was given hypodermically, and in one by the mouth. The doses used were the $\frac{1}{72}$ and the $\frac{1}{100}$ of a grain. Until we have more reports as to its effects, it will not be wise to go beyond these doses.

*Journal of Nervous and Mental Disease, October, 1883.

†Therapeutic Gazette for January and February, 1885.

Medical Societies.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting, March 27, 1885. The President, Dr. Edward E. Montgomery, in the chair.

Dr. Edward R. Stowe reported a case of

Laryngeal Diphtheria; Tracheotomy; Recovery.

Healthy male child, aged twenty-two months; seen on the second day of disease.

Conditions.—Moderate fever and malaise; cervical glands enlarged; fauces, uvula, and tonsils covered with grayish-white membrane.

Evening of Third Day.—Voice was husky, but no difficulty in breathing.

Fourth Day.—Symptoms of laryngeal stenosis developed rapidly, with beginning cyanosis and stupor. Symptoms not relieved by an emetic. Early in the afternoon tracheotomy was performed by Dr. E. E. Montgomery, with no more difficulty than necessarily accompanied operation on a short neck and deep trachea. There was no hemorrhage and no important structures were disturbed. A large Trousseau tube was inserted and covered with gauze. With the exception of slight fever for three days, the case progressed steadily to recovery. Tube was removed on the fourteenth day, and the sinus rapidly closed.

Treatment.—Full doses of corrosive sublimate (gr. $\frac{1}{20}$) with tinct. ferri chlor. and potass. chlor. every two hours; gr. vj. quinia in suppos. daily, with large doses of whisky (℥iv. in twenty-four hours) in milk. After tracheotomy, the room was kept at 80°; atmosphere moistened by the almost constant use of carbolic acid and lime-water in steam atomizer. Insufflations of sulphur were frequently made to throat. Tracheotomy tube was removed and cleansed daily, and on the fifth day after operation was replaced by a smaller tube to allow air to pass around it. At each daily dressing the wound was closed with the finger, to force the patient to draw air through the larynx.

Points of interest:

1. Tender age of child.
2. Good results of an early operation.
3. Perseverance in the use of remedies directed against the diphtheria after the operation.

4. The undoubted good results of large doses of whisky.

5. The probable benefit of corrosive sublimate as a remedy for diphtheria.

6. The advantage of inserting a large tube.

7. The use of the tube for a longer period than usual (two weeks).

8. The relief afforded by the use of the steam atomizer in moistening the air-passages and facilitating expectoration.

Dr. Stone also reported a case of

Intestinal Obstruction from Probable Intussusception.

Female child, aged two years and eight months.

History.—Some diarrhœa for three or four days before attack; swelled abdomen, with passage of bloody mucous alvine. Sudden pain in abdomen, with passage of bloody mucus, and followed by complete cessation of alvine evacuations, and frequent vomiting.

Condition on the 4th day.—Face pinched and anxious, pulse small and rapid, tongue dry and red. Position dorsal, with legs flexed, and no disposition to move; abdomen decidedly prominent, tender and tense; tympanitic. Swelling general, and most prominent at the umbilicus, no dullness or other sign of tumor could be detected, nothing abnormal could be felt in rectum. Frequent vomiting of a brown fluid, having fecal odor.

Diagnosis.—Intestinal obstruction, probably intussusception of the ileo-cæcal variety, with resulting peritonitis.

Treatment.—Full doses of opium, careful and systematic efforts to relieve the difficulty with injections of warm water. These were unavailing, and the child died on the eighth day of exhaustion, without having had a passage from the bowels.

Points of Interest.—Frequency of intussusception as a cause of intestinal obstruction in young children, and in them the relative preponderance of the ileo-cæcal variety.

1. Value of opium to quiet peristalsis and facilitate reduction by injections.

2. The infrequency of a cure by spontaneous elimination of the invaginated gut in children, and at the most common site of the disease in the young, viz., ileo-cæcal variety, is shown by the statistics of Treves, and the unsatisfactory results of the various plans of reduction.

3. The importance of *early* laparotomy to seek for and relieve the difficulty after a fair trial has been given to injections.

In the discussion which followed the report of of these two cases, Dr. W. O'Hara said that the case of laryngeal diphtheria seemed to have been cured by tracheotomy, rather than by the bichloride. The chlorides have always been used in diphtheria: is it the chlorine in the bichloride that does the good? There hardly seems to be enough to destroy bacteria. It is hard to tell what the indications for tracheotomy really are. In a case of nasal diphtheria occurring after measles, several years ago, a consultant was called, who said the time had passed for the operation to do any good. There was great dyspnœa, also recession at the epigastrium, the positive symptoms laid down for the need of the operation, but he would not recommend an operation, as the proper time had passed; suggested the use of cold compresses to relieve the child, if possible, but said it would die within four hours. As soon as the first compress was applied the child gasped like a new-born child, regained its breath, and rhythmical respiration was kept up by ice-cloths, and the child finally recovered entirely.

It seems as though the local application of the bichloride ought to destroy the bacteria, if the experimental evidence of Drs. Wood and Formad, and their conclusions are, acceptable in reference to diphtheria.

Dr. Wm. W. Keen related a case in which he was called in consultation by Dr. Harlow, March 18, to a child æt. 6 years, who had been sick for two weeks. Diphtheritic membrane all over the uvula, fauces, and as far down the throat as was visible. The child had coughed up a large membranous cast, on which were ridges corresponding to the tracheal sinus. The patient was well-nourished, not markedly cyanotic, some congestion of the lungs posteriorly. Temperature, 100°; pulse, 120; respiration, 40. The urine was one-half albumen, and had been so for several days. The treatment had been calomel and soda, with later Basham's mixture. The child was placed under the chandelier on a table, chloroform administered, and the operation performed at midnight. The incision was made over the cricoid cartilage about two inches in length. The thyroid isthmus was found low down at the third tracheal ring. The upper ten rings of the trachea were incised, and a portion of them removed. The child improved for three days, temperature never exceeding 100⅘°. The outer tube was first removed and cleansed 36 hours after the operation. On the night of the 21st inst., respiration became very difficult, from inspissated mucus, so that the tubes had to be repeatedly removed and thoroughly cleansed; by the next day the mucus had almost disappeared. The tube was removed, and the child was able to breathe without it. At 6 p. m. of that day the tube was reinserted for three hours in order to keep the opening patulous, so that there would be no difficulty in the introduction of the tube should respiration become difficult during the night; but it had not been inserted since. The child is sitting up, the laryngeal wound being almost healed.

The temperature of the room was kept about 80°, and the atmosphere kept moist by lime-water spray in an atomizer; part of the time there were two. This method is preferable to that of keeping the air moist by slaking lime, for the slaking of lime scarcely supplies anything but vapor of water to the atmosphere. About f. ℥ iij. of brandy were given in 24 hours. Digitalis when the heart's action was weak, and Basham's mixture for the kidney lesion, which is steadily improving. The operation should be performed early; it is not one which in itself endangers life, and if laryngeal stenosis exist for a long time, the pulmonary complications make it futile.

In regard to the case of *Intestinal Obstruction*, the method of Hegar seems to be the best by which a copious injection may be given for overcoming the obstruction. An india-rubber tube 18 inches or 2 feet in length, one end terminating in an ordinary rectal nozzle, at the upper end a

glass funnel; by means of this, from 4 to 6 quarts of water may be injected slowly and painlessly in an adult. A fountain syringe may be used, having the bag hung about two feet above the patient. As a rule, no anæsthetic should be used, especially in children. The first indications of pain should be watched, otherwise too much water might be injected, and the peritoneal coat or the entire bowel ruptured. In the case reported, if Dr. Stone's rules could have been carried out, laparotomy would have been performed. Our experience with this operation would indicate that it involves very little additional danger, and there is the possibility of a cure. In one recent case, seen in consultation with Dr. D. M. Barr, in which the vomiting indicated obstruction, three quarts of water were injected while the patient was under the influence of an anæsthetic. The patient was so hyperæsthetic that anæsthesia had to be induced. The entire injection was retained, and the next day another, equally large, was given, which brought away a great amount of fecal matter.

Dr. O'Hara could not see that the first injection produced any effect, and thought it must have been absorbed.

Dr. Keen considered that the first copious injection probably moistened the fecal matter, as it was not scybalous when passed; and as the obstruction had existed for two weeks, it would have been so, unless so moistened. In some cases the course of an injection can be followed, if the large intestine can be mapped out, by the change in the percussion note.

Dr. O'Hara called attention to a case of fecal accumulation, which had been going on for some time, seen by him and Dr. Keen together, over ten years ago.

Dr. Keen remembered the case. The patient was a child six or seven years old. A rigid mass in the abdomen, which might have been mistaken for muscular contraction, only on account of its oblique direction. A large quantity of water was injected with a Davidson's syringe, and in a little while the child passed an immense quantity of fecal matter, and was relieved. The injections of water act by moistening the matter, and by causing peristaltic action of the bowels. The advantages of Hegar's method over Davidson's syringe are that no long tube need be inserted into the bowel; the flow is continuous, not spasmodic, and a greater quantity can be injected. The height of the column of water should not exceed two feet, as that exerts a pressure equalling one pound to each square inch of intestinal surface.

Dr. Montgomery said that almost a year ago he presented a report of twelve cases of tracheotomy to this Society, and at the January meeting of this year, presented a patient who had been operated upon and had recovered. A large number of the operations were for membranous croup. In the first ten cases the operation was a last resort, and all the patients died; one lived until the ninth day, and then died of cardiac paralysis. The shortest period of life was thirty-six hours after the operation. One patient lived seventy-two hours after being operated upon, and at autopsy the upper half of each lung was found collapsed; free secretion had been established, but the child was too feeble to throw it off, and might be said to be drowned in its own secretions. He now when called to a case in which the operation will most probably be necessary, speaks to the parents at once in regard to it, so that they may be prepared, and not lose valuable time when the case demands the operation. Out of four cases operated upon since the ten, three have recovered. Three of these four were diphtheritic croup; all were treated with the bi-chloride. Two of the cases were seen with Dr. Amy S. Barton; both were diphtheritic. The one first operated on recovered; the second was in the same family, and though there was great exhaustion, and the operation seemed to offer but little chance, it was done because the parents urged so strongly for it, as the other child had recovered. The child died fifteen hours after the operation. It is necessary to operate early, even though by so doing we may sometimes operate upon those who would recover without. As soon as remedies seem ineffectual to relieve the dyspnœa, operate. In diphtheritic croup the operation is demanded as soon as we have recession at the epigastrium. In using chloroform as an anæsthetic, there is less irritation and spasm of the larynx than when ether is used. Very little chloroform is needed, as the dyspnœa is generally great. First lifting up a fold of the skin transverse to the trachea, and transfixing it, the incision can be made through it and the superficial fascia without much hemorrhage. Then tear through the other parts until the trachea is reached. The incision should be made about the middle of the neck, the head being well thrown back.

Dr. Stone, in closing the discussion, said that the fact of some cases recovering without the operation of tracheotomy, should not make any difference as to the performance of the operation; which, to be successful, must be done *early*. The gaining of the consent of the parents is often due to the manner in which the doctor puts the question to them; if he only half believes in the operation, it is hardly likely that he can gain the consent of the parents.

Dr. Keen's criticism in regard to the performance of laparotomy, in the case of intestinal obstruction, is just. The operation should have been performed, but the circumstances of the case were such that surgical interference was out of the question. Treves recommends anæsthesia in children, previous to the trial of injections, to overcome the tenesmic efforts of the patient to pass off the fluid. Not using force, as a rule, is good, but will the simple force of gravity be enough to do any good? Treves recommends a nozzle with a pad attached, so as to prevent return of the fluid.

Mary Willits, M. D.,
5107 *Germantown ave.* Reporting Secretary.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

(*Concluded from page* 529.)

The president presented the specimen and read the following report of a rapidly growing

Papillomatous Ovarian Cyst.

Mrs. G., æt. 41, widow for eight years; has had eight children, the youngest being nine years. She always enjoyed robust health until Sep. 1884, three months before I first saw her. At that time a slight metrorrhagia began without pain or

other disturbance. Previous to that time her catamenial periods had been regular. In October she noticed that the lower portion of her abdomen was slightly enlarged a little to the left of the median line. She thought nothing of it then, but thought that she was growing fat. The hypogastrium however continued to distend, and she began to lose flesh. Her physician, Dr. A. R. Blair, of York, Pa., brought her to see me on Jan. 3d, 1885. Her abdomen was then as large as at the sixth month of gestation, symmetrically developed, perfectly smooth, dull on percussion over the distended portion, but resonant in flanks and epigastrium, and there was marked fluctuation. Dark bloody discharge from uterus, not fetid. It was thought she was pregnant, and that the metrorrhagia was due to threatened miscarriage. But she was losing flesh, and there were no rational or physical signs of pregnancy except abdominal enlargement. The uterus was slightly prolapsed and retroverted, rather softer than natural, as patulous; cervix granular. Sound two and a half inches; uterus not easily moved because of a mass pressing upon it from above. I diagnosticated a rapidly-growing ovarian cyst, and advised immediate operation; but she was not ready. I saw her again on February 7th. The tumor had increased to double the size it was at first examination. It was still symmetrical, and occupied the same relation to the uterus. She was losing flesh and strength. She now complained of pain all over anterior surface of abdomen, and her pulse and temperature were slightly elevated. She at no time suffered pain in the tumor.

On February 18th, she entered my private hospital. Has increased greatly in size during the intervening ten days. Circumference at umbilicus forty-six inches, veins in abdominal wall distended. Tumor still symmetrical and markedly fluctuating. Metrorrhagia has continued daily since its first appearance in September. Suffers from dyspnea. Pain over surface as before, and abdominal wall seems to be one with the tumor. I suspected from this circumstance adhesions of tumor to peritoneum. Urine normal.

Operation, February 20, 11 a. m., assisted by Drs. D. J. M. Miller and J. C. Gabell, in the presence of Drs. A. R. Blair, J. W. Kerr, and F. B. Hazel. Incision three inches; tumor almost universally adherent to anterior wall of abdomen and omentum, and very vascular. I passed my hand and separated adhesions, and then tapped the cyst; the fluid had the color and consistence of healthy pus, and was more than an ordinary wooden pailful in quantity. Solid portion of tumor larger than the fœtal head at term, was delivered through the small incision. The tumor proved to be of the left ovary, and had a very short and vascular pedicle, which held it in close contact with the uterus. Ligated and amputated omentum. Transfixed and ligated the pedicle with fine Chinese silk, cut and dropped. The right ovary being perfectly healthy, was not removed. The uterus was soft and congested. Peritoneum purple from congestion, but there had been no ascitic fluid, and the peritoneal cavity was found almost free from liquid. Probably ten minutes were spent in looking for bleeding vessels, and finishing the "toilette of the peritoneum." Abdominal wound then closed with eight silk sutures. The patient recovered from the anæsthetic without any evidence of shock; pulse 98, temperature normal; and she continued to do well until the second day, in the evening of which the temperature reached 100°, its highest point; pulse 108 and strong. She complained of being tired, and looked worn. She had not passed flatus from the anus, but there were occasional eructations of foul gas. There was no tympany and no pain, but at about 11 p. m. she vomited, or rather regurgitated, about a pint of very fœtid yellowish liquid, of a decidedly fœcal odor. The large quantity (she had not taken a teaspoonful of anything since the operation) and the odor, together with the fact that she had not passed flatus from the anus, caused me to suspect intestinal obstruction. Her temperature fell soon after this to 96°, and her pulse rose to 130, and became very weak. There was no pallor of countenance or distension of abdomen or Douglas's cul-de-sac, or should have thought this depression, bordering on collapse, was due to hemorrhage. Neither were there any other symptoms of intestinal obstruction than the apparent fœcal vomiting and the non-escape of flatus from the rectum.

Under the influence of active stimulus, by the rectum and hypodermically, she slowly rallied, but the temperature did not reach the normal point until the fifth day after the operation, when flatus began to escape from the rectum. Her recovery was rapid after this. The sutures were removed on the eighth day. Union complete and solid. She sat up on the thirteenth day. There has not been any bloody discharge from the uterus since the operation.

The tissues of the cyst-wall are very friable, and the internal surface is studded with an exuberant papillary growth, presenting an appearance not unlike cauliflower excescence.

The very rapid growth of this tumor to the great size which it attained in five months, the constant metrorrhagia and the character of the tumor, place this case quite out of the usual course of development of ovarian cysts, and make it worthy of record. These are characteristics of malignant disease. Is this a malignant tumor? I think not, in the sense of that it will necessarily return, now that it has been removed before the cyst-wall had broken down and discharged its contents into the peritoneal cavity. This is the course of papillomatous ovarian cysts. But even when this has occurred, and the peritoneum become involved, the disease may not return after removal. Some years ago I assisted Dr. Goodell in the removal of a papillary growth of the ovary, in which the cyst had ruptured and discharged its contents into the peritoneal cavity. The peritoneum was greatly involved, being thickly studded at various points with hard papillary nodules. The patient recovered, and the disease has not returned. Dr. Emmet records a like experience. He says, "I have never regarded the condition as malignant in character, or in any respect more than a benign growth, accidental to ovarian tumors, and accompanied by an ascitic accumulation." (Ascites complicates a later stage of the disease than my case had reached.) "I have, however, sometimes observed in this supposed malignant disease that patients bore the

shock of the operation badly, and died from apparently trivial causes." *Prin. and Prac. Gyne.*, 3d ed., p. 683. It is probable that ovarian cysts of very rapid development often have this papillary character. One of the specimens which I presented to this society at its last meeting was of this description, though less marked; and it had attained a size of thirty pounds in nine months. It is also probable that the constitution is more profoundly affected by these growths than by the ordinary slow-growing ovarian cysts. For these reasons operations should never be deferred in such tumors.

Dr. Harris inquired whether any microscopic examination of the tumor had been made? He always suspected malignancy in rapid growths, and in papillomatous tumors the decision can not be made from appearances, as of two such having the same apparent characters, one may prove to be malignant and the other benign.

Dr. Goodell remarked that the question of malignancy in ovarian tumors was a most interesting one. As regards papillomatous cysts; Doran had divided them into two classes, one springing from the pilus of the ovary and not necessarily malignant, while papillary growths in cysts of the broad ligament usually indicated malignancy. Some years ago he removed a collapsed papillomatous ovarian cyst upon which the late Dr. Hodge had refused to operate in consequence of supposed malignancy. It was complicated by ascites, and the peritoneal cavity had become infected with secondary growths; yet the woman got well, and has probably remained well. On the other hand, benign-looking growths were sometimes malignant; for instance, he removed a large tumor having many adhesions; twenty-four ligatures were left in the abdominal cavity. It was wholly benign in appearance, and the patient got up and about, but soon she became oppressed by rapid breathing. Effusion into the right pleura was discovered, together with malignant growths affecting that cavity and scattered throughout the abdominal cavity. The tumor was evidently malignant, but it did not look so. In another case of apparently benign cyst, in which the clamp was used, menstruation occurred from the cicatrix, and, later, papilloma of the stump and abdomen sprouted out from the cicatrix, and the patient died. He said that all his cases of colloid tumors, three in number, have become malignant afterwards. In one case, five years after the first operation, the second ovary became diseased, the sac burst, and the whole contents of the peritoneal cavity became infected. In another, two years after the removal of both ovaries, the disease returned in the broad ligament, probably from the stump of the ovary. In another case, the cicatrix burst open a few weeks after the operation, and a large papillomatous growth sprouted out, the lady dying soon after. Tait considered that among the causes of malignancy are tapping and delay in operating; the age of the cyst tending to malignancy. Dr. G. doubts if the microscope can distinguish between benign and malignant papillomata. Virchow states that although benign at the beginning, they may become malignant in the later stages.

Editorial Department.

Periscope.

Coca in Fatigue.

Dr. E. R. Palmer, of Louisville, thus writes in the *American Practitioner*, February, 1885:

On Monday, November 10th last, at 1:22 a. m., a seven-day "go-as-you-please" walking match was inaugurated at the Tivoli Theatre in this city. The contestants were six professional female pedestrians, who, together with a management, trainers, etc., constituted an organization that had been conducting like contests in several of the Western cities for some months past. Prompted in the main by curiosity, I dropped in on the scene at about one o'clock p. m., Saturday, the sixth day of the contest. I learned on inquiry that two, and probably three, of the contestants had dropped out of the race, but that the management, with a view to "keeping up the attraction," was negotiating with two of these three, one a celebrated runner, the other a favorite because of her youth, with a view to their reentering the lists. The three remaining contestants were then on the track. At 1:15 a fourth made her appearance. I was told that it was the young one, L. C. She walked slowly, and with evident pain and weariness, around the track, which measured twenty-one laps to the mile. In conversation with her trainer I learned that she had come back under the inducement of a written contract pledging her the sum of one hundred dollars extra if she accomplished the required distance of three hundred and fifty miles by the close of the seventh day. It was evident that she was badly "out of form." Her gait was unsteady, and her eyes, sunken in her head, were encircled by broad dark rings. The register showed for her two hundred and forty-seven miles and nine laps so far accomplished, leaving to be covered in thirty-six hours one hundred and two miles twelve laps to save her distance. The register also showed her to be sixty-eight miles behind the next competitor in the race.

While acquiring this information, I happened to remember that Flexner & Co., druggists of this city, had, a few days before, informed me that they were in possession of a large lot of Fraser's wine of coca, sent them for distribution among the profession here for experimental purposes, and I at once proposed to the trainer that he permit me to take part in her control from then till the finish, assuring him that I believed I might restore her vigor, put her on her feet, as it were, and possibly make her win her race by means of a medicine which I would furnish free of cost, and would warrant to do her no harm. After a short consultation with her he accepted my proposition,

and I sent a boy for a pint of the coca. She drank a large sherry-glassful at once, with the remark that it tasted "elegant," and continued her journey. In twenty minutes I allowed her the second dose, and by thirty minutes after the first dose, two o'clock, her step was quick and elastic, and with head up, she moved easily around the track, humming the air the band was playing, and declaring that she felt like a new woman. At 3:15, two hours from the new start, she had accomplished nine miles, making a total of two hundred and fifty-six miles and nine laps, at a rate of four and one-half miles an hour. The following table shows the rest:

4:45—266.1 miles ;
9:10—285 "
10:13—290 "
11:30—295 "

As will be observed, the time for each five miles runs a little over an hour. She has in the meantime gained twenty-one miles over her next competitor, reducing the gap to forty-seven miles. So far one pint of the coca wine has been consumed. At 11:30 she retired, and slept soundly until 2 a. m., when she returned and walked three miles, retiring again on account of the track being full of amateur contestants. This time she slept until a little before 9 a. m ; awoke thoroughly refreshed, ate her breakfast with good appetite, and was on the track at 9 a. m. with two hundred and ninety-eight miles ; 10:05 with three hundred and three miles ; 11:30 with three hundred and eight miles, three laps, when she retired to rest and lunch, returning at 12:35. In the meantime the complaint reached me that some one had stolen her bottle of medicine; another was ordered at once on a *carte blanche* to the druggist to supply all that was called for.

The race between the leaders was practically settled by this time, and all interest centered about the question as to whether the girl would, by drinking the coca, be able to make her distance. It was a notable fact, that of all the walkers she was now the freshest, and her time, barring the spurts of the runner, who had returned, the best time being made. From 12:35 p. m. until 5:35 p. m., she kept constantly traveling around the ellipse, until the dial showed three hundred and twenty-nine miles to her credit, leaving but twenty-one miles to be made in nearly eight hours. She left the track at this point for supper, returning at 7:09 p. m., looking to be in splendid form, and proving it by walking five miles in one hour and three minutes. At 9 o'clock two male professionals were to start in a five-mile contest, and at 8:52 she left the track with three hundred and thirty-seven miles, two laps to her credit. During all of this time she had taken the coca freely, under directions to give it to her whenever she called for it. I did this because of its not in the least disagreeing with her stomach, and because of the manifest bracing power it was exerting upon her muscular system. At 9:14 she returned and essayed to resume her journey, notwithstanding the two male pedestrians were rushing around the track and passing her every few laps. It soon became evident that she was constantly in fear of being run down by them, and on her refusing to leave the track, she was urged to keep the pole as they passed. During the three hundred and thirty-ninth mile, on turning the northeast angle of the track, at an unguarded point she lost her presence of mind, faltered, and in attempting to step backward out of the way of one of the men, fell a distance of nearly six feet to the ground, and was carried to her dressing-room unconscious, but with no apparent injuries. She rallied shortly, drank some coca, and, although complaining of pain in the epigastric region and in the right knee, she insisted on again taking the track, where, after limping through two laps, she gave way to tears and left the track, remaining in her room until 10:30, when she came out again to strive for her coveted goal. By dint of the free use of coca and the encouragement given by the audience, she kept slowly but steadily at work until twelve and a half minutes before midnight, when she entered her last five miles, finishing the three hundred and fiftieth mile at seven and a half minutes past one o'clock, with but fourteen and a half minutes to spare, with a painful side and a swollen knee adding increased burden to her task during its most critical period.

She was taken shortly after to her hotel, where I found her next morning resting comfortably, but with the right knee and leg swollen and quite painful. In a few days she was fully restored. Immediately after her fall she had a full slow pulse of seventy. The following day, still using the coca, the pulse was regular and full, showing the same rate. On the third day, the coca having been withdrawn, there was a slight increase, with some irregularity, which, however, shortly disappeared. During these days I learned the following facts regarding her career as an athlete: She puts her age at seventeen years, is five feet five inches tall, and weighs one hundred and twenty pounds, with the strong hard muscles and absence of intermuscular adipose tissue characteristic of a person in training. She entered pedestrianism in July last, and had participated in some eight contests. The last of these occurred in Cincinnati but two weeks previous, during which match she walked four hundred and two miles in seven days. With short rest, poor lodgings, bad food and travel, she was by no means in form for the present contest, and so when she found her muscular powers flagging, she had recourse to sherry flip, and even stronger liquor, the result being her letting down as stated at the commencement of this article. From the time she began with the coca she took no other stimulant except a sip at long intervals of sherry and milk, and ate scarcely anything, owing chiefly to the poor quality of food furnished. To my mind the experiment was both striking and conclusive, in every way favorable to the vaunted efficacy of the coca wine in physical fatigue.

It will be remembered that several years ago, when coca, was first introduced, I reported the cure of several cases of opium habit by its free administration. The then objection to its use was its nauseous taste, as prepared in fluid extract, patients in a short time invariably refusing to take more of it. This fault is fully overcome by the elegant and agreeable wine. The wine of the United States Pharmacopœia, as made by the dispensing chemist, is inelegant and possessed of

all of the nauseant properties of the fluid extract from which it is prepared. So far, I have found three superior wines made directly from fresh leaves—Fraser's (the one I used), Henry Thayer's, and Caswell & Massey's.

Probably no drug more readily loses its virtues than the coca leaf, so that great care must be exercised in its selection, many of the specimens for sale in the Eastern markets being absolutely inert. The great advantage of a good wine made of selected leaves being the readiness with which a delicate stomach will bear it in full doses and for a long period of time. I feel confident that there is thus placed in the hands of the practitioner an elegant, safe, and sure remedy for physical exhaustion. I find coca *the* agent used in the City Hospital in *mania-a-potu*. The new anæsthetic, muriate of cocaine, is derived, as is known, as an alkaloid from the leaves.

Ilio-Femoral Aneurism, Treated by Instrumental Compression—Cure.

Dr. W. Berry thus writes in the *Lancet*, March 14, 1885 :

The notes of the following case of ilio-femoral aneurism are interesting, especially as they prove the dictum of Mr. Bryant in his work on Surgery, page 463, second edition, where, in writing of ligature of the external iliac artery, he says: "This operation may be required for aneurism of the common femoral, for wound, or for any other cause in which it is necessary to arrest the flow of blood through the lower extremity. It should not, however, be performed for any disease unless pressure of the artery, digital or instrumental, has proved ineffectual or is inapplicable; for Mapother,* Eck,† and Hilton,‡ have all recorded instances of cure of inguinal aneurism by these means." This case was sent to me by my friend, Dr. Hannah, of Ashton-in-Makerfield, and my first intention was to ligature the external iliac, this operation to my mind affording the only chance of cure. At a consultation with my colleagues of the infirmary staff, it was thought advisable to try pressure in the first instance, and if failure followed, then to ligature the vessel above the aneurism. The application of compression was not easy to accomplish, and much credit is due to the indefatigable perseverance and ingenuity of our senior house-surgeon, Dr. Jackson, and also to the courage exhibited by the patient himself, which led to a successful result as a reward for their efforts. I am indebted to Dr. Jackson for the following notes :

George S——, aged forty years, a collier, was admitted into the Royal Albert Edward Infirmary on August 21, 1884. He then stated that whilst following his employment seven weeks previously he had been injured in the right thigh by a runaway coal-tub. Immediately after the injury he felt a shooting pain in the region of the right groin, which lasted about fifteen minutes. There was no external wound or abrasion of the skin, but poultices were applied on account of the pain. Patient continued to work, and about two days afterwards noticed a small lump in the right groin, which had continued to enlarge. He continued to work until a week after the accident, when he was idle for three weeks, in consequence of a lock-out at the colliery; after this he worked one week, and then "strained" himself again, and was laid up. The patient has been married sixteen years, and has three healthy children; he lost one, aged fourteen months, from consumption of the bowels. There is no history of syphilis, but there is a circular scar about the middle of the dorsum of the penis, which he states was caused by a wound he received in the mine. He had gonorrhœa twenty years ago. On examination, a pulsating tumor, the size of a large walnut, was found immediately below the right Poupart's ligament, at a point corresponding with the position of the femoral artery. The patient was placed on milk diet, and ten grains of iodide of potassium, three times a day, were ordered. On September 2, he went home, against the wish of the house-surgeon, without any improvement having taken place. On October 1, he was readmitted. The tumor could now be felt pulsating above Poupart's ligament and as far down as a point two inches below it, and was one inch in width. The patient was again put on milk diet and fifteen-grain doses of iodide of potassium three times a day; and after a consultation with the staff, it was decided to apply pressure to the external iliac artery. On the 9th, the patient was placed in a small ward alone, and at 2 p. m. had three-quarters of a grain of morphia hypodermically, and the right leg enveloped in a fold of cotton wadding. Pressure was then applied to the external iliac by means of a Lister's tourniquet until the pulsation in the tumor ceased. In about half an hour the patient became very restless and complained of pain, and all circulation in the limb appeared to have ceased. He was then allowed to smoke, and, having been deprived of this (a favorite enjoyment of his) for over a week, submitted cheerfully to the pain for another hour. At 3:30 p. m., the pain was so severe that chloroform had to be administered, and this was continued until 6:15 p. m., making in all four hours and a quarter of continuous pressure, when the tourniquet was removed. On the 10th, the pulsation in the tumor was slightly (?) diminished, the patient feeling comfortable. On the following day the patient was in much the same condition. The bowels were relieved by a dose of castor oil. On the 12th, the pulsation in the tumor was apparently as strong as ever; the leg was flexed on the thigh and the thigh on the abdomen with a roller-bandage in the groin, for one hour and a half both morning and evening. Next day the leg was again flexed, as before, for two hours and a half. No result followed this procedure. On the 14th, the pulsation was as strong as at the commencement of treatment, pressure was again applied by Lister's tourniquet, with the aid of tobacco and chloroform, for three hours and a half. Pulsation in the tumor had entirely ceased when the pressure was removed. The following day the pulsation had ceased; the limb was cold, but the patient was comfortable. On the 16th, the circulation in the limb returned. On the day following, there was no pulsation in the tumor, which was quite solid. The circulation in the limb was quite re-established through

* Dublin Medical Press, 1865.

† St. Bartholomew's Hospital Reports, 1866.

‡ Medical and Chirurgical Transactions, 1869.

collateral channels. The patient went on well, and was discharged cured on November 3, 1884. At this time, a firm tumor could be felt an inch and a half in length and an inch in width at the seat of the aneurism, but no pulsation, and the circulation in the limb perfectly good.

January 27, 1885. Patient seen and examined to-day. Tumor now feels like a thickened cord about three-quarters of an inch thick; no pulsation in it. Circulation in limb keeps good, but he is advised to nurse his leg yet awhile.

Remarks.—This case, though unfavorable for direct pressure owing to the circumstance of its position, yet by the result amply repays one for the trial made. I must here tender my thanks to Dr. Jackson for his patience and perseverence in the treatment of this case, for had he not sat by the patient and kept the tourniquet fairly in position over the artery, I am sure we should not have been able to record this successful issue.

Post-Partum Drainage of the Uterus: Washing the New-born Child, A Hint as to Hypodermic Injections.

Dr. S. J. Bumstead thus writes in the *Peoria Med. Mo.*, March, 1885:

POST-PARTUM DRAINAGE OF THE UTERUS.

It occurred to me a year or so ago that the lying-in patient was particularly liable to septic trouble by reason of the position usually occupied in bed, making anything like thorough drainage nearly impossible. At the same time, probably most of us have been averse to the patient arising even to urinate, preferring them to use the bed-pan, and under these circumstances how easy it is for some of the discharges being thrown off the uterine walls to remain inside the uterine cavity. Of course the fundus of the uterus does not immediately sink below the sacral rim, yet when the patient is lying horizontal, the incline from the interior of the uterus to vagina is not great, and I fear too often nearer the dead level than is consistent with running streams. With this in view, whether fully justified or not, I have been in the habit of late of ordering the head of the bed blocked up from six to eight inches, or just avoiding what might be uncomfortable to the patient, and maintaining this position as long as she keeps her bed, and there is any considerable lochial discharge. It is well also to permit these patients to be placed on the chamber once a day, to still further promote the escape of the offensive material from the uterine cavity.

WASHING THE NEW-BORN CHILD.

We are also too apt to forget that the infant just brought into the world, was but a moment before enjoying the equatorial climate of 98½° F., or 38° C., and that the one with which it is ushered is oftener 65° F. than else. Under these circumstances a sudden change of 33½° of temperature takes place in its surrounding medium, and could these poor "little men and women" reason at this time, they would undoubtedly agree with the sentiment that "this is a cold, cold world." What should a consideration of such plain facts teach us? Plainly it seems to me that we should wrap up the child very warm, and allow it to remain unexposed to the free atmosphere of the room until several hours have elapsed, in order to give its organism time to adapt itself to the extreme change in its environment, and thereby avoid many troubles which arise in consequence of this terrible first ordeal, through which the new being has to pass. I incline to the opinion that any other plan is almost cruel, and possibly one which might well be taken in hand by the humane societies, when they lack objects upon which to exercise their humane faculties.

A HINT AS TO HYPODERMIC INJECTIONS.

Hypodermic injections of various kinds seem in many cases a necessity, and without entering into the question as to the abuse of this method of medication, I would say that as little pain as possible should be given in this or in any other minor surgical procedure. I have noticed that most physicians seem to think it necessary to make the injection in the vicinity of the diseased or painful part, but with the exception of neuralgia of a superficial nerve trunk, I believe there is no good reason for, or rather, necessity for so doing. Taking into practical account the varying degrees of sensibility to pain of the different regions of the body, I have for several years always taken the back or the front of the shoulders towards the spine, rather than outwards towards the shoulder-joint, as the least sensible to painful impressions of the surface of the body. If you will pinch the skin here a moment before piercing it with the needle, you will often be told it was not felt in the least as pain. Try it on patients whom you have heretofore tortured on the arms and anterior surface of the body, and I believe they will testify in favor of this method.

Membranous Croup; Diphtheritic Croup; True Croup.

The April number of *The American Journal of the Medical Sciences* contains an elaborate clinical study of true croup from the pen of Dr. J. Lewis Smith, of New York. He fully considers the etiology, anatomical characters, diagnosis, prognosis, and treatment. Whatever the cause; the anatomical characters, the clinical history, and the required treatment, are so nearly identical that attempts to differentiate the disease when produced by other agencies than diphtheria from that due to diphtheria, have proved futile and unsatisfactory in localities where diphtheria occurs, except in a few instances, as, for example, when croup has been manifestly caused by swallowing or inhaling some irritating agent.

Dr. Smith holds that inflammation of the laryngeal and tracheal surface, whatever its cause, whenever it reaches a certain grade of severity, may be attended by the exudation of fibrin and the formation of a pseudo-membrane; but such a result more frequently occurs in the inflammation caused by diphtheria than in that produced by other agencies. In diphtheria a moderate laryngo-tracheitis is attended by the pseudo-membranous formation. Dr. Smith's experience leads him to believe that not more than one in eight cases of croup has recovered by medicinal treatment which began in the first week of diphtheria, and in which the symptoms were so pronounced as to indicate more or less laryngeal stenosis. The exudation in the first week of diphtheria, or in its active period, occurs so rapidly, and in such

large quantity, that no one of the medicinal agents or modes of treatment, which physicians commonly prescribe, is sufficiently prompt in its action to prevent the formation of the pseudo-membrane to an extent that soon endangers life.

Croup occurring in the second or third week of diphtheria, since it is attended by less abundant and less rapid exudation than when it occurs during the acute stage, can be more successfully treated under the persevering use of solvent inhalations, and a larger proportion than one in eight, perhaps one in three, recovers by the early and continuous or almost continuous use of inhalations.

Still the mortality is so large, and the suffering so great in croup, at whatever stage of diphtheria it occurs, that we cannot rely on the slow action of medicines or inhalations, and surgical treatment is in most instances required to diminish the suffering, and afford the best chances for sav-ing life.

Under the head of medicinal treatment, he strongly recommends trypsine as a solvent of false membrane. Of calomel, he says: The experience of many physicians justifies the belief that mercury and especially calomel employed within certain limits in the commencement of a pseudo-membranous inflammation does exert some controlling action on this disease. That it did much harm formerly when physicians prescribed it as freely as we now employ patassium chlorate, to the extent in many instances of increasing the cachexia and causing mercurialism, should not deter us from its judicious use. In the ordinary form of diphtheria he would not advise the use of calomel, or would limit its employment to one or two doses of six to ten grains in the commencement of the disease in robust cases. But in croup, since the danger is not from the cachexia or blood-poisoning so much as from the laryngeal stenosis, which is apt to develop rapidly, that medicine is indicated, and should be prescribed, which most strongly retards the exudative process, and aids in liquefying and removing the pseudo-membrane, provided that it produce no deleterious effect which renders its use inadmissible. Hence it is proper to prescribe calomel in larger doses and for a longer time in the treatment of croup, than in other forms of membranous inflammation, if it fulfill the indication, as it seems to in a measure In his own practice, however, calomel is not prescribed after the first or second day, since Dr. Smith prefers the use of other remedial measures, which are efficient, and are less likely to produce injurious effects. The subject of surgical treatment is also fully discussed, and Dr. Smith holds that we can claim for tracheotomy judiciously performed, and at a sufficiently early stage, the cure of one in every three patients on the average.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——"The Puget Sound Sanitarian and Prohibitionist," vol. i. No. 1, comes to us from the far Pacific shores, declaring with no uncertain note in favor of "Total abstinence for the individual; total prohibition for the state." It is a monthly published by the Woman's Christian Temperance Union, of Seattle, Washington Terr., at $1.00 a year. It is energetic, positive and well-edited, and we doubt not will do a good work.

BOOK NOTICES.

The Diaphragm and its Functions: Considered Specially in its Relations to Respiration and the Production of Voice. By J. M. W. Kitchen, M. D. Edgar S. Werner, publisher, Albany, N. Y. Flexible cloth, $1 *net*, postpaid.

The functions of the diaphragmatic muscles to healthful breathing, to the management of the voice, and to the general health, are brought forward with considerable force in this essay.

The anatomical division of the subject treats of the diaphragm's location, general shape, gross composite parts, origin, openings, tendon and muscular fibres, minute anatomy, blood-supply, lymphatic and nervous supply, relations, embryology and history of development, comparative anatomy and important co-operative structures. The physiological part discusses the function of respiration generally, the movements and varieties of respiration, the action of the respiratory muscles, respiratory action and change of shape and respiratory rhythm of the diaphragm, control of the diaphragm's action, incidental functions of the diaphragm, change of shape in the trunk during respiration, differences in male and female breathing, certain natural phenomena that occur synchronously with the action of the diaphragm, relation of the circulation of the blood to the action of the diaphragm, actions of the diaphragm resulting from extraordinary causes, the comparative physiology of the diaphragm, and functional development of the organ.

Much useful hygienic advice is added of especial value to females.

The Medical Directory of Philadelphia, Pennsylvania, Delaware, and the Southern Half of New Jersey, for 1885. 8vo., flexible cover, gilt, pp. 397. Price, $2.50. Philadelphia: P. Blakiston, Son & Co., 1885.

This valuable compilation will be prized by all who would familiarize themselves with the present condition of the profession, and of medical organizations and institutions in the territory named. It has not only a list of practitioners, druggists, and dentists, but contains also a full and accurate description of medical associations, societies, hospitals, homes, schools, asylums, nurses, and nurses' schools, etc., and a variety of miscellaneous information.

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MEDICAL SCIENCE.

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It is, in fact, a supplement to the ***REPORTER,*** being made up of articles which have not appeared in the weekly, but yet are of value and interest to the physician.

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DISCOLORATION OF DEAD BODIES.

After dead bodies have been exposed for a certain length of time to the influence of the atmosphere, peculiar, green discoloration is apt to set in in the skin, the muscles, and all organs provided with blood. A greenish tint is also noticed at times in bloodless-tissues. On flesh of animals this discoloration is by no means a rare occurrence, and is frequently observed before the odor of decomposition announces the decay of the substance. On the day of the funeral the relations of the deceased usually like to see the dead person appear as naturally as possible, and the undertaker is often at a loss how to remove the discoloration that has already taken place.

For this purpose the investigations of P. Pellacani are of interest. P. took the greatest pains to determine the causes of this green tint, and to discover the means of removing the discoloration. His researches have been reported in the *Rivista Sperim. de Fren.*, etc., x. 3, pp. 93–121, and we bring in the following, results of his laborious work.

The green color met with in tissues supplied with blood-vessels, P. found to be due to a body, the result of a chemical union of the sulphuretted hydrogen derived from the albumen with the coloring matter of the blood. That he is correct in this supposition he has proven by the chemical identity of this body with the so-called sulpho-hæmaglobin artificially prepared in the laboratory. The green tint produced in some organs and tissues not provided with blood-vessels, is due to a combination of the sulphuretted hydrogen with a globulin—sulpho-vitellin. Both substances, the sulpho-hæmaglobin as well as the sulpho-vitellin, can be easily deprived of their green color by any solution containing a sufficient amount of chlorine. It is also well to know for practical purposes, that if not employed in too large a quantity, the chlorine solution causes no other change in the appearance of the tissues, except that of slightly bleaching them.

POISONED BY COLORED STOCKINGS.

Again and again have medical journals warned

against the wearing of cheap colored underwear. As these materials generally consist of cotton, at least to a great extent, the coloring stuff is not always an innocuous, but frequently a dangerous one.

The latest case of this kind is reported by Dr. O. Seifert in the *Wiener Med. Wochenschrift*, 1885, 38. A young lady, æt. 26, had been wearing stockings, which had been colored by an anilin-red containing a large percentage of arsenic. She was suddenly seized with all the symptoms of a gastro-enteritis and an acute hæmorrhagic nephritis; besides, an eczematous skin-eruption made its appearance on the dorsal surfaces of both feet. The treatment first gave a very unsatisfactory result, until the cause was discovered, when the patient was cured of her disease within three weeks. The urine, however, for a considerable time afterwards, contained a small amount of albumen, though this finally also disappeared.

There ought to be a sanitary inspector, not only for all food—whether solid or fluid—that is offered for sale, but also for articles of wear. The demand for cheaper goods and the great competition has made many manufacturers reckless, and they seem to care very little if they injure the health of individuals, if they can only produce goods which are cheap and showy. As not every buyer can be an expert, purchasers ought to be protected by law, making the poisonous or any adulterations of any article offered for sale, a criminal offense, and appointing inspectors for the purpose of investigating and discovering all dangerous swindles of that kind. Meanwhile, it would be best for all buyers to avoid all cheap articles, which mainly attract attention by their bright colors. In wool, the danger is not so great, as woolen materials may be easily dyed by innocuous vegetable coloring matters.

Notes and Comments.

Tannic Acid Injections in Cholera.

In view of the fact that a visitation of cholera is expected by many this summer, it is well that we should refresh our memories on all recommended methods of treatment. Hence we reproduce the following from the *Lancet*, February 21, 1885:

During the recent exceptionally severe epidemic of cholera at Naples, Professor Cantani proposed combatting the premonitory diarrhœa by warm tannic acid enemata. The practice was largely and successfully adopted. Dr. Vincenzo Vitone has just published, in *Il Morgagni* for last month, his results with that method of treatment at the Cholera Orphanage at S. Antonio a Tarsia. The children admitted in this institution came from the most infected parts of the city, and had lost one or both parents from cholera. Three illustrative cases may be quoted from a large number in which cholera was promptly arrested by tannic acid clysters. S. B., aged eight, was conveyed to the orphanage on September 18, from the house in which both his parents had died from cholera. He had enjoyed perfect health up to the time when, from no appreciable cause, he was seized with vomiting and diarrhœa. In a few hours he had ten evacuations, the last perfectly colorless. The patient complained of intense thirst and pain over the region of the stomach; the face was slightly cyanotic; temperature 36° C.; pulse scarcely perceptible. The following solution was injected per rectum: Warm water, 1000 grammes (1 gramme is equal to 15.432 grains); tannic acid, 3 grammes; gum arabic, 20 grammes; and laudanum 12 drops. An infusion of chamomile was at the same time administered. After the lapse of an hour the boy was more wakeful, and the pulse became perceptible; the alvine discharges ceased, and in two days the patient left his bed completely cured. P. T., aged four years, had lost her mother from cholera, and was conveyed to the Orphanage on October 10. She was rapidly reduced by rice-colored stools, so as to be scarcely recognizable. At 3 p. m. the temperature was 36.1° C., and the pulse almost imperceptible. The following clyster was administered: Warm water, 400 grammes; tannic acid, 2 grammes; gum arabic, 15 grammes; laudanum, 5 drops. The diarrhœa was suddenly arrested. At midnight the child was wakeful, hungry, and partook of milk. In two days she left her bed perfectly cured. A. R., aged three, lost his mother from cholera, and was suddenly seized with vomiting and diarrhœa. The face became cyanotic, and the extremities cold. The temperature of the body was 35.1° C.; the pulse was scarcely perceptible. A warm tannic acid clyster, according to the formula in the preceding case, was administered at once, an infusion of chamo-

mile was given by the mouth, and the limbs were wrapped in warm woolen cloths. In the course of two hours the diarrhœa had ceased, and marked reaction set in; the temperature was 38.8° C., and the pulse 80. The following day the fever continued, and the bowels acted, but the motion was well formed. The fever continued two days longer, but then subsided, leaving the child perfectly well. In adults, Dr. E. Villani has injected per rectum as much as fifteen grammes of tannic acid in two litres of warm water, with invariably good result. The *modus operandi* of the treatment s attributed by Professor Cantani to the astringent power of tannic acid, and to its sterilizing the comma bacilli, which need an alkaline solution for their development. Without entering into this therapeutical disquisition, the clinical results appear to afford striking evidence of the efficacy of warm tannic acid clysters in the treatment of cholera.

Arcus Senilis in a Boy Aged Three and a Half Years.

Such cases as the above are so very unusual, that the following, which Dr. H. F. Hansell reports in the *Med. News*, April 4, 1885, is worthy of consideration. It is the case of a mulatto boy three and a half years of age, with distinctly marked and unmistakable arcus senilis in each cornea. "Circulus" senilis would be the more accurate designation, since the ring is complete on each cornea, though not quite so fully developed below as above, and on the sides. It appeared on each eye simultaneously in the upper segments of the cornea, about one year ago, while the boy was convalescing from an attack of measles, and slowly advanced until the arc was made into a ring. He could obtain no history of inflammation or ulceration, and the mother positively asserts that the child's eyes "never had anything the matter with them, except the white rings."

These rings of fatty degeneration are in nowise dissimilar to the arcus senilis of adult life or old age. There is a margin of clear cornea between them and the sclerotic border, and they are sharply bounded toward the centre by clear corneal tissue, which shows no trace of previous inflammation.

The influence of heredity, which can usually be traced where the arcus appears in the very young, in our case is negative. The mother and several brothers and sisters are free from the affection. The boy has no other abnormalities, and his health is perfect.

Edwin Canton, in his monograph on arcus senilis, says: "The arcus is said to have been seen at birth. I doubt the correctness of this assertion, and, as I have already remarked, believe that an arciform opacity, the result of ulceration, was mistaken for it." The youngest case he mentions occurred in a boy of twelve, in whose father, aged fifty-six, mother, aged fifty-three, and two brothers, aged sixteen and twenty, the arcus was very distinct. Middlemore says it occurs as early as forty, Laurence between thirty and forty, Sybel saw it in a man of thirty-two, Dixon in a girl of eighteen. Gross, in his *Pathology*, says: "The earliest age at which it usually occurs is fifty, although it has been observed in a few instances in young children."

Cardiac Hypertrophy in Adolescents.

The Paris correspondent of the *Lancet* writes that Prof. Germain Sée lately submitted a paper to the Academy of Sciences on Cardiac Hypertrophy occurring in youth, or during the process of the growth of the body. He endeavors to make out that this hypertrophy is merely the result of growth, and not of any morbid influence, consisting as it does in a simple increase in the numerical strength of the primitive fibrillæ of the heart, or, in other words, in the hyper-nutrition or hyper-sarcosis of that organ, accompanied with dilatation. There is, moreover, no fatty or fibrous degeneration, nor are the coronary arteries sclerosed, as is the case with hypertrophy resulting from disease. It is, however, difficult to say whether the lesion in question consists in true hypertrophy or in simple dilatation of the heart, as it generally disappears with the cessation of growth of the other parts of the body. Prof. Sée founded the subject of his thesis on eighty individuals, thirty of whom were youths aged from eight to sixteen years, and the others from sixteen to twenty-one, all being in other respects in a perfectly normal condition. In another class of cases—that is, in young recruits aged from seventeen to twenty, and who presented themselves for certificates for volunteer service—he found a great number who were the subjects of functional troubles or manifest lesions of the heart, as verified by auscultation and percussion. Professor Sée seemed to look upon this condition as almost normal in youth, and on that account did not consider that it incapacitated young men for military service. MM. Vulpian and Larrey, however, who had to report on the paper, did not take this view of the case, as they considered that hypertrophy of the heart, being an abnormal condition,

is incompatible with the exigencies of military service. This opinion was emphasized by Baron Larrey from personal experience of many years, and he stated that, as it would be impossible to say whether the cardiac hypertrophy would or would not disappear at the cessation of the growth of the individual, as suggested by Prof. Sée, he considered it advisable to reject the recruits who presented such a condition.

Electricity in Collapse.

Dr. Caspar Griswold publishes a paper on this subject in the *N. Y. Med. Jour.*, April 4, which terminates with the following conclusions:

1. Electricity *can not* be applied clinically in such a way as to stimulate the heart, literally speaking. In cases, however, where the heart is rapid, without much impairment in force, a mild current might be carefully applied over the pneumogastric in such a way as to restore the normal rhythm, and so increase the general efficiency of the heart's action. Cases are rare, however, where this would be indicated, rapidity and irregularity of the heart's action being generally associated with such feebleness as would contra-indicate any stimulation of the pneumogastric.

2. The application of one pole in the neck, and the other over the præcordial space, directs the current to the pneumogastric nerve, and retards the heart instead of stimulating it. A strong current applied in this way may stop the heart and kill the patient instantly.

3. An electric current applied over the phrenic nerve necessarily stimulates the pneumogastric at the same time. This measure, therefore, always threatens as much in the way of cardiac depression as it promises in the way of respiratory stimulation.

4. Liability of the heart to be stopped by pneumogastric stimulation is not increased in aconite, ether, or opium poisoning. It is, therefore, permissible to cautiously apply electricity over the phrenic nerve in these conditions.

5. In heart failure from chloroform, and when morphine has been injected into a vein, the heart may be stopped by even a slight current applied to the pneumogastric. The application of electricity over the phrenic is, therefore, strongly contra-indicated under those conditions.

6. And, finally, it is emphasized that under no circumstances should a current strong enough to contract muscles elsewhere in the body be suddenly or incautiously applied over the phrenic or pneumogastric, or anywhere in the neck.

Diabetes in a Boy Aged Seven and a Half.

Diabetes in children is so comparatively rare that all cases are worthy of record. Hence, we note that to the Liverpool Medical Institution (January 14, 1885), Dr. Whitford showed a boy, aged 7½, who was the subject of diabetes. He was the eldest of four children. The others were strong and well developed. When the mother was seven months pregnant of the boy shown, she was obliged to nurse her own mother, who was ill, and for three weeks was not able to go to bed. The labor passed off naturally, but at birth the child was very puny and wizened-looking; improvement set in when it was three weeks old, however, and at three months it was a healthy-looking child. It remained healthy on the whole until two years ago. At school he learned but slowly; later on he wetted his trousers and bed, drank and ate greedily, and was drowsy. He passed in October, 8, 9 and 10½ pints of urine *per diem*, of a sp. gr. of 1042. The quantity of urine passed gradually diminished until it reached two pints daily, but the sp. gr., which had kept at the same level nearly the whole time the child had been under observation, at last, and rather suddenly, went up to 1052. There was nothing pointing to intra-cranial mischief.

Dr. Joll stated that a patient of his was in India with her husband, and when seven months pregnant, her husband, when out hunting, was attacked with sunstroke. He became maniacal, and shot several policemen, under the delusion that they were pursuing him. The lady naturally suffered much distress, and returned to England. The child of which she was pregnant at the time—a boy—did well, and nothing abnormal was noticed till he was about seven years old, when he became diabetic. He wondered whether the intra-uterine life of the children had any bearing on the disease.

Dr. Carter said he had at the present time three children under his care, all diabetic; but they were improving, and he hoped they would eventually get quite well.

Treatment of Œsophageal Cancer.

From the *Med. Press*, January 28, 1885, we learn that at a recent meeting of the Clinical Society of London, Mr. Symonds, of Guy's Hospital, described a method of treating cancerous stricture of the œsophagus by means of permanently retained tubes. The case described was that of a man for whose relief gastrostomy appeared to offer the only feasible resort; but before proceeding to

make the opening, Mr. Symonds resolved to try whether a short tube could not be so arranged and introduced through the stricture as to admit of fluids being swallowed through it. The patient had been much distressed, also, by his inability to swallow saliva, and his rest had consequently been greatly disturbed. The instrument devised by Mr. Symonds consists of the terminal six inches of a rubber catheter, to the upper end of which a slightly-dilated funnel is attached, and to this latter a silk thread. The whole apparatus is passed carefully back to the pharynx and œsophagus, and well through the stricture, the lower open end either passing into the stomach or nearly so. The free end of the silk thread is fastened securely round one ear of the patient, and the tube removed, when required, by its means. At first tubes of ivory, hard wood and silver, were tried, but it has been found that rubber stands as well, and is as safe and comfortable as any other material—the man at the present time having in one of this description, which was inserted ten weeks since. It is of the calibre of No. 10 catheter, and permits of thick fluid being swallowed with ease and comfort, while the taste is also enjoyed. This plan is an unquestioned improvement on the usual one of feeding by a stomach tube, and its extension seems to offer many prospects of high benefit. Future experience alone can prove how far the application of this method must be confined to cases in which the stricture is below the level of the cricoid cartilage. Mr Symonds is himself sanguine that it may be found of service for even those of a post-laryngeal character.

Cocaine in Cancer.

What next? When will we stop hearing of some wonderful new property inherent in cocaine? Dr. J. Sinclair Holden would have us believe that it possesses certain powers over cancer. In the *Brit. Med. Jour.*, February 21, 1885, he reports the following case:

"An old farmer came to me lately with an epithelioma on the third finger of the left hand; it had passed into the fungoid stage, and was growing rapidly, being about the size and shape of a cherry, covered with a black leathery crust. As I had before successfully removed these growths by following Dr. Marsden's plan of treatment by arsenical mucilage, I applied it in this case. My patient was a very difficult one to manage; he could neither endure much pain, nor take morphia; so that, after two short applications, very little progress was made, except that the base of the tumor was becoming inflamed, and that I was able to detach the hard crust. Another and final application was necessary. This he dreaded very much; I therefore scraped the tumor down to the raw bleeding surface, and soaked it for fifteen minutes in a four per cent. solution of the hydrochlorate of cocaine, and then applied a thick coating of the arsenic. I was pleased to find that he had actually no pain for six hours, and was able to bear it for six hours more, when he took the lint off, and poulticed; the latter he continued doing for three days, when the tumor came away as a slough, leaving a clean, healthy cavity, which is now healing satisfactorily.

This plan of effectually destroying small cancerous tumors is one of great value, and in many respects superior to excision. The only drawback is the excessive and prolonged pain; if this can be diminished by cocaine, as in the above instance, it will be a very great advantage.

Hereditary Syphilitic Affection of the Joints.

In the *Arch. f. Klin. Chir.*, xxxi., p. 228., Dr. P. Güterbock reports the following interesting case:

A weakly boy, æt. 18 months, was said to have suffered during the first six weeks of his life several times from an eruption of the skin simulating chicken-pox. When brought to G.'s clinic the boy showed a small papulo-squamous syphilide, and an unimportant bony defect in the left ulna; the left arm was carried as if paralyzed; the elbow-joint, though there was no change in the appearance of the skin, evinced decided swelling, attacking partly the joint itself and partly the surrounding tissues; an enlargement of the epiphyses of the bones was also demonstrated. In a somewhat less degree the right knee-joint also suffered, and the head of the fibula was unmistakably enlarged. By the use of sublimate baths, all joints completely recovered their functions, and with the exception of a small swelling of the epiphyses of the left elbow, a general normal condition of the affected parts set in. A month later a relapse occurred, and yielded to the same treatment, after which the child continued in apparently good health.

G. mentions that the peculiar paralyzed condition accompanying the swelling of the joints seems to be a diagnostic point in the cases of hereditary syphilitic affections of the joints. The epiphyses are almost always swollen. Several other points are of value in the diagnosis. Scrofulous or tubercular disease of the joints in childhood yields only to surgical treatment; rheu-

matic affections are influenced mainly by salicylic acid and its salts, while only those joint troubles due to syphilitic diathesis are rapidly healed by the proper treatment. G. finally advises never to proceed to an operation in doubtful cases, until an antisyphilitic treatment has been given a fair trial.

Poisoning by Colchicum.

The *Lancet*, March 21, 1885, says :

A case of suspected poisoning by colchicum is just now attracting some attention in Paris. The accused is a person named Ribout, an artificial flower maker ; and his wife having died suddenly, it was suspected that he had made away with her in order that he might marry his mistress. The remains of Madame Ribout were accordingly disinterred, and were submitted to a long and careful examination by M. L'Hôte, the chemical expert attached to the Paris Criminal Court. It is said that indications of the presence of colchicum were discovered, and that little doubt could be entertained that the unfortunate woman met her death from the administration of poison. It has long been known that meadow saffron is a powerful toxic agent. As far back as 1839 the case was recorded of a gentleman who took an ounce and a half of colchicum wine by mistake, and died in four hours. The symptoms are usually severe, and fairly characteristic. At first there is burning pain in the stomach, with persistent vomiting and purging, the stools being mixed with blood. Irritation of the throat and intense thirst are soon added. The patient suffers from great prostration, pain in the head, a small, weak or irregular quick pulse, muscular twitchings, and severe pains in the extremities and joints. In some instances the symptoms have been not unlike those of malignant cholera. At the post-mortem examination the stomach and intestines are usually found to be greatly inflamed, and purple patches are sometimes noticed on the skin and internal organs. A curious case of poisoning by "gout pills," composed chiefly of colchicum, was recorded in the *Lancet* of March 15, 1881.

Temperature in Diabetes Mellitus Due to Cerebral Lesion.

The view has now been generally adopted by authorities that there are two main varieties of diabetes mellitus, at least as far as the pathogenic cause is concerned. One seems to be primarily due to disturbance of the function of the liver, while the other can always be traced to an original morbid condition of the brain. As well known, the latter variety can be easily produced in animals by pricking the floor of the fourth ventricle, where the nucleus of the pneumogastric nerve is situated. Dr. Ed. Aronsohn has recently made a number of experiments to determine the influence which diabetes, thus artificially produced, may have upon the temperature of the interior of the organism, and especially that of the liver (*Deutsche Med. Woch.*, '85, 16). The results obtained by him in these investigations show that if the experiment is correctly executed, *i. e.*, without injuring neighboring parts of the brain, the temperature declines within two hours about 3 degrees F. in the liver, the muscles, and the intestines. If neighboring brain-tissue has been accidentally injured, the temperature first falls for a short time, and then returns to the normal. When the experiment totally failed, *i. e.*, when only the pons or the sides of the medulla oblongata were pricked by the needle, the temperature at once rose 1–2 degrees F.

Intravenous Injections in Cholera.

Dr. Hayem, the well-known French medical writer, has published his experience during the late cholera epidemic in France in the *Bull. de l' Academ. de Méd.*, 1885, 17. He was attached during this period to the St. Antoine Hospital, and he is greatly in favor of intravenous injections. Of about 100 cases of Asiatic cholera, he is positive to have saved the lives of 20 by this method. The solution which he usually employed was the following : Distilled water 1 litre, chloride of sodium 80 grains, sulphate of sodium 160 grains. This solution was first filtered, and then heated in the water bath up to 38° C. The quantity mentioned was used in children; in adults double the amount was injected within from 12 to 15 minutes by the aid of a transfusion-pump.

It may be that there is some virtue in this method of treating cases of Asiatic cholera during the stage of collapse ; but considering that the last epidemic in Paris, during which Hayem gained his experience, was by no means a very fatal one, the results obtained by him—saving 20 per cent.—were not extraordinarily favorable, especially as he does not say that the 100 cases had been of grave nature.

—In an exhaustive article in the April number of *The American Journal of the Medical Sciences*, Dr. Charles A. Oliver, of Philadelphia, further tests the correction of the theory of color perception, which he propounded in the preceding issue, by the pathological data at our command.

CORRESPONDENCE.

Washing the Baby.

EDS. MED. AND SURG. REPORTER:—

I hope I will not be considered rude or egotistical in offering a few hints in a friendly criticism on Dr. G. A. Hill's article on "Some of the Common Disorders of Infancy and Early Childhood," which appeared in the REPORTER, February 7, 1885.

My object is not specially to give my own views and experience on the subject, but to encourage a progressive man, who labors to correct some of the absurd customs and practices of the age.

Dr. Hill calls our attention to an important matter when he says, "I think it is the duty of the physician to have a watchful care over the very first handling" of the infant, and I hope he will still further extend his practice in that direction.

Why the disposition of the profession to follow useless ancient customs, I cannot conceive, unless it be from negligence, old-fogy ideas, and the fear of adverse criticism from ignorant nurses and prejudiced mothers.

I am of the opinion that far too many medical men quit the lying-in-room perfectly indifferent to the proper needs of the little one.

With scarce a word of advice, they leave it to the care of an uninstructed nurse, who has to resort to her own ideas of treatment or follow some ancient superstitious tradition for a guide.

In your instructions to us, doctor, you say, "The nurse should receive the infant in a very soft piece of flannel, carefully warmed, and proceed at once to wash it; before applying the water it should be thoroughly anointed with melted vaseline; this bland soothing material is well calculated for the purpose, mixing easily with the caseous substance on the head and in the folds and flexures of the body, and is afterward readily removed by neutral soap, leaving the skin soft and not liable to become chafed." To a portion of this advice allow me to take an exception.

You begin the ablution of the infant by applying an oleaginous substance; that is, you first wash it with grease, an article which you consider necessary, really a prerequisite, in fact, to mix with and remove the adherent caseous matter. I therefore infer you believe soap and water unsuited for that purpose.

Yes, in that you are correct. The grease dissolves the vernix, and if properly applied, and sufficient time be allowed to elapse for the solution of the substance, the surface can then be readily and effectually cleansed by subsequently wiping with soft flannel.

Now, if the soap and warm water will not primarily do the work, or answer the end in view, wherein is the necessity for their use? Why, then, resort to agents of power which are not only absolutely useless, but positively injurious.

They must be useless, when you find they will not fulfil the indication required of them, and cause you to resort to the aid of another media for that purpose. It is plain, therefore, they can be dispensed with.

That they are injurious, any intelligent medical man can satisfy himself by accurate observation. I submit the following points:

The heat from the warm water contracts the cutaneous vessels, and the evaporation of the moisture chills the surface. Incident to this is the prolonged manipulation during the bath, under the absurd impression of having the body particularly clean.

The length of time thus consumed in first applying grease, then soap, followed by the process of rubbing and scrubbing with cloth and warm water to remove the natural and artificial coatings, so prolongs the exposure of the nude body in a temperature much less than that of the infant previous to birth, that a shock follows which require hours for reaction. As a result of this, see the cold and blue extremities, see the shivering body.

Following the shock is a congestion of delicate vital organ or organs, terminating in some form of catarrhal or other disease.

Possiby you may claim that by allowing the grease to remain a few hours unwashed from the surface, there may be an obstruction to the cutaneous transpiration. Should such be a fact, however, would it not be of infinitely less danger than that of removing it as you do?

Again, if we claim the initial warm-water bath a necessity, what reason do those people give for their practice who roll the infant in the snow?

To the assertion that a neutral soap and warm-water bath leaves the skin soft and not liable to become chafed, I disagree.

Can you assure me that strophulus, the red and white gum of the laity, is not the result of that soap and warm-water bath? Are not other cutaneous diseases also the result of that process? How many persons procure a neutral soap, or know when they have it?

If there is a valid or plausible reason why the first bath shall be soap and water, particularly warm water, I hope some one will elucidate the subject for me.

"After the washing, the physician himself should dress the cord stump, for to be rightly done, it is no unimportant matter. A soft linen or muslin roller, a little wider than the length of the stump, some mutton tallow, and a string, are all that are needed. The nurse holding up the cord by the end, the tallow is applied to the navel, and the roller is carried several times around it and secured with a string."

The result of this manipulation will be a moist, discolored, offensive, unsightly dressing.

Let art step aside in these instances and receive a lesson from nature. Allow the stump to dangle undressed, and you will be pleased to see how nicely it will dry, nearly devoid of fetor, and coil up against the abdomen, trammeling you less than the method you recommended.

After a thorough application of grease, either lard or vaseline, a soft loose flannel gown to envelop the body, and a napkin about the hips, is the proper dressing, dispensing with shirts, skirts, and bands. In twenty-four or forty-eight hours it can have its first tepid-water bath, which is to be gone through with quickly, with little or no soap.

This is followed from day to day, until the stump falls, when I resign the charge to pride and fancy clothing.

The REPORTER did me the honor of publishing

an article on this subject January 30, 1880, and I had the pleasure of reading an extract from the *Medical World* published in the *Obstetric Gazette*, November, 1884, detailing a similar plan followed in the Maternity Department of the Philadelphia Woman's Hospital.

The learned gentlemen in that institution also sponge the eyelids with an antiseptic solution as soon as the head protrudes, and remove the unsevered placenta in a proper receptacle from the maternal couch with the infant.

W. J. Craigen, M. D.

Cumberland, Md., April 7, 1885.

Reduction of Funis Readily and Easily Accomplished.

Eds. Med. and Surg. Reporter:—

During an active practice of over twenty-one years, and a record of about four thousand full-period deliveries, I have necessarily met with almost every known difficulty that can confront the accoucheur. I do not know of any condition of things in the "lying-in chamber" (except puerperal eclampsia and placenta prævia) which gives rise to graver fears on the part of the accoucheur than the discovery of a funis presentation; for every other condition being favorable, he is confronted with the stern fact that he is liable to have a still-born child as the result, and thus justly or unjustly have to bear the odium attached to the case by the regretful parents, whom no amount of explanation would wholly satisfy. There have been a number of methods and means suggested for the reduction of the escaped funis, which have been resorted to by every accoucheur with more or less success—myself among the number. Many a time have I labored unsuccessfully with a "rebellious funis," when no sooner would I succeed in replacing one portion than another would slip down, and thus render futile all my previous efforts—this more especially when the cord was *extra long;* and another difficulty is its slippery character, which makes it impossible almost to hold.

During the past year I have resorted to a new plan, which obviates the (disagreeable) necessity of putting the patient in any position other than on the side or back, and furthermore, renders instruments improvised for such purposes unnecessary—a very important point, since the very mention thereof, not to speak of their exhibition, has such a depressing and alarming effect on such a large majority of patients.

This plan, which I have tried successfully in the last eight cases I have met with, is as follows: Introducing the index finger into the most distal loop of the escaped portion, and slowly twisting the cord upon itself, you will in a very short period of time bring the object into a shape which can be readily seized by the fingers and replaced above the brim of the pelvis, meantime keeping the hand in vagina until head of child engages and prevents any further prolapse. The tendency of said cord (like rubber tubing so treated) is to immediately unwind. I cannot better illustrate my remarks than by relating the history of the last case, which occurred on the 10th of April. Mrs. McD., multipara, fourth child, the three prior to which had been delivered by forceps, on account of contracted brim of pelvis, all three being dead at time of this birth. A great deal depended on this fourth child being born alive. I was sent for at 8 o'clock in the morning, and failed to arrive until about 10 o'clock, when I was informed by the mother that the water had broken at 8 o'clock, and that she had pretty severe pains ever since.

Upon examination, I found, to my chagrin, a forearm and funis in the pelvic cavity, the pulsation in funis being almost imperceptible. I immediately gave a fluid drachm of squills, fluid ext. ergot, and introducing my entire hand into the vagina, replaced the arm, and placing my finger in the loop of the cord, I twisted slowly until the presenting portion was reduced to a ball-shaped mass, easily seized between the fingers, and I then shoved it gently back above the brim of the pelvis, the hand in the meantime being kept in the vagina until the head became engaged. Pains came on very regularly and severely, and after waiting two hours, the head failing to descend on account of contraction of brim above-mentioned, and a caput succeddaneum forming; at 12 m., I applied forceps at superior strait, and completed the delivery of a living female child, much to my satisfaction and the unspeakable joy of the parents.

I hope that my suggestion so readily carried out, and dispensing with so much that may be disagreeable and distressing to the patient, may prove as successful to others as it has to me.

Daniel E. McSweeny, M. D.

New York City.

Circumcision Under Peculiar Circumstances.

Eds. Med. and Surg. Reporter:—

The following case occurring recently in my practice seems worthy of note:

Patient, male, aged 25, came to my office with history of recent syphilitic contagion, presenting following symptoms: Penis swollen to twice its natural size, foreskin drawn tightly over glans penis, with an extensive discharge emanating from under the foreskin, inguinal glands enlarged, and all evidence of syphilis. I undertook to retract the foreskin to examine the condition of the glans, and found it impossible to do so; and in fact, twenty-four hours of constant antiphlogistic treatment failed to subdue the inflammation sufficiently to retract the skin. As time was limited, on account of evident serious work of the syphilitic ulcers, I determined to perform circumcision. The patient being intelligent, and having considerable pride also, consented to operation, but would not allow me to have any assistance whatever, and consequently could take no anæsthetic, but preferred to "bite a nail" and bear it. Accordingly, I turned the key in my office door, patient sat down, and I performed the operation of circumcision straightway. Found considerable destruction of tissue from the rapid ulceration; the ulcers were immediately put under treatment, and I had the satisfaction of seeing my patient make a good recovery in due time, and he also the satisfaction of knowing that it was all done and cure made without the knowledge of any

third party. I would say that my patient not only bore the operation without flinching, but acted in capacity of assistant, holding instruments, etc., his pride and terror of any one knowing it outside of myself keeping him up and giving him the will-power to do so.

Union City, Pa. C. G. Hollister, M. D.

News and Miscellany.

The Treatment of Patients in the Temples of Æsculapius.

The *N. Y. Med. Jour.* (March 28, 1885,) tells us that before the New York Academy of Medicine, Prof. Merriam, of Columbia College, by special invitation, read a paper with this title. In his introductory remarks he said he thought we were too much inclined to judge of the views of the ancients concerning the means of healing the sick from the standpoint of the medicine of the nineteenth century, which, of course, was an injustice; nevertheless, it was amusing now and then to read a passage in which it appeared that it pleased the ancient deity to cure the sick in a more than usually ridiculous manner. Certain facts concerning medicine from the sixth century B. C. down to the fifth century of the Christian era, already recorded in medical literature, were mentioned, but the author dealt chiefly with new discoveries made during excavations of the temples of Æsculapius at Athens, Epidaurus, and Cos. On one of the slabs recently unearthed was a long list of diseases said to have been cured by miraculous interposition, a complete translation of which was read. This belief in miracles in the cure of disease by the ancients of the Oriental countries existed among the inhabitants of the same countries at the present day, the difference being that the virgin and the saint had been substituted for the temple of Æsculapius. There were some unbelievers then as there were also at the present time. Three hundred and twenty temples of Æsculapius were known to have existed in antiquity.

Dr. John C. Peters referred to the studies of ancient medicine by the late Dr. John Watson, and also by himself. He thought it had been shown that Hippocrates was not given to the tricks and deceptions practiced at the temples of Æsculapius. He referred to certain evil customs existing at present in Egypt and certain parts of Asia which were similar to those existing in the ancient temples of Æsculapius.

The Hygiene of Colleges.

The *N. Y. Med. Jour.*, March 28, says that a recent number of the *Progrès Médical* contains a vigorous article on this subject, in which a dismal picture is drawn of the dangers which threaten the health of the French youth during his college career. "It is at college," says the writer, under the influence of its detestable physical and intellectual hygiene, that many children contract the germs of disease, which break out during youth or mature age." The writer is not very clear as to the exact character of these noxious influences, since he speaks in one sentence of bad water-closets, and in the next of excessive mental strain. We heartily agree with him in his strictures upon the improper ventilation of recitation-rooms. Many an American's reminiscences of his college days are not without certain memories of low, dark chambers, which were better adapted for coal-cellars than for class-rooms, in which thirty or forty young men were obliged to inhale one another's foul exhalations for an hour at a time. And then our medical schools—God save the mark! But here we "come too near home." We can readily imagine the impression produced upon a tender parent (such as our French *confrère* describes) who should visit some of our most venerable institutions, in order to decide as to which one offered the most favorably hygienic surroundings for his hopeful son. But, jesting aside, would it not be a good plan for our medical schools—we do not criticise the collegiate institutions, for they are improving—to make a few concessions to the growing want of fresh air? With their increasing means, several lecture-rooms might be provided, so that the students would not be obliged to breathe the same stifling atmosphere for two hours or more at a time. If the tradition in favor of ill-ventilated medical schools is too strong to be easily overcome, perhaps an alternation of miseries might render them more endurable. Even a dull lecture is enlivened by an occasional breath of the outer air.

More Truth Than Poetry.

The *Med. Press*, (February 4, 1885,) very truly says as follows:

Amidst the mundane and grovelling considerations of fees and other hum-drum incidents of medical business, it is a truly blessed feeling for the working doctor to look in upon his breast and realize that, without knowing it, he is an incarnate combination of self-sacrificing philanthropy and ordinary business capacity.

If any of our readers have never realized their beatitude, we commend to their reading the following assurance from the mouth of a president, who compliments his audience in the following phrases:

"That which is but the occasional luxury of others—the relief of pain, the mission of mercy above all distinction—is our daily task. *We* truckle to no caprices of power or fashion; *we* acknowledge no worldly dependency, but follow in freedom a life at once useful and bountiful to others, elevating and independent for ourselves. Gain is but the incident, not the essential of *our* handiwork, because our true *honoraire* is the memory of insufferable pain relieved, the rescue of valued lives from danger, the restoration of fathers and mothers to their children, and the saving the little ones that seemed doomed to die."

Such a view of doctoring is very gratifying, but we suspect that most doctors—editors included—look upon the "incident" of gain as not the least part of their reward of labor, and that when a good public appointment is vacant, even *we* may violate the rule which prohibits our "truckling to the caprices of power or fashion."

This sort of peroration is neat and self-satisfying, but it is nonsense. *We* are just no better

and no worse than our neighbors, and we shall not succeed in persuading the world that we are even if we delude ourselves into the idea.

A Caution to Experts.

We have already referred to the Spitzer case, and as a sequel we now note from an English exchange that the affair has excited much sympathy in Germany. It will be remembered that Dr. Spitzer was fined and suspended for a time from practicing, for causing gangrene of a hand by the application of a solution of iodine and collodion to a swelled joint of one of the fingers. Appeal was of course made, and the decision of the first court reversed, but, in the meantime, Dr. Spitzer committed suicide. At the last meeting of the Medical Society, at Berlin, a great discussion arose on the effect of the remedy employed by Dr. Spitzer on the skin, and feeling rose very high between the members. Prof. Weinlechner first spoke. He said: "In the Spitzer case I was called by the prosecution to give my opinion as an expert on the solution of collodion and iodine employed. In accord with two of my *confrères* well versed in forensic medicine, I declared that the painting of the little finger with the liquid had provoked gangrene. The accused having appealed, the Faculty of Medicine made several experiments, with the result that the incriminated liquid was declared inoffensive.

"The Court of Appeal reversed the judgment of the first court, and it is now easy for any one to see that this act constituted a reproach which concerns me in my position of surgeon. It was admitted by one of the experts (medical) that collodion applied in a ring form around a finger might cause gangrene, and I was determined to examine minutely into the effect of the solution, and having had brought to me a child with a supernumerary digit, I applied seventeen times a solution of iodine and collodion, the same strength as used by Dr. Spitzer, that is to say, 1 in 100. There is not yet any appearance of gangrene, but I am certain it will not fail to set in shortly."

M. Dittel, one of the committee which pronounced it in a contrary sense, considered that the professor had not made out his case, and that their opinion could not be altered.

M. Albert, secretary of the committee, said that he had sought in vain in books for warning against the action of collodion, and he interrogated several leading medical men, all of whom replied that they never saw nor heard of a case of gangrene produced by it.

After some angry remarks by the professor, the discussion ended.

A pendant to this affair is reported from Bohemia. A Dr. H. was called to see a child who was suffering from dislocation of two of the carpal bones of the right hand, with external wound. The proper dressing was applied, and in two days the doctor returned and renewed the treatment. On the following day symptoms of gangrene set in, and other medical men being called, declared that their *confrère* had drawn the bandage too tightly, and that amputation was necessary. To this the parents refused to submit, and the hand dropped off in a few days. Dr. H. was prosecuted for negligence, and condemned to again undergo his examinations and pay damages to the parents. He appealed, and the Faculty of Prague having sustained him, he was acquitted.

American Surgical Association.

The annual session of this Association was held in Washington, April 21, 22, 23, and 24. The president's address was delivered by Dr. William T. Briggs, of Nashville, after which the following papers were read:

"A Device for the Purification of the Air of Rooms used for Operations," by Dr. David Prince, of Jacksonville, Ill.

"The Field and Limitation of the Operative Surgery of the Human Brain," by Dr. John B. Roberts, of Philadelphia.

"Nephrectomy, its Indications and Contra-Indications," by Dr. S. W. Gross, of Philadelphia.

"Nephrolithotomy," by Dr. L. McLane Tiffany, of Baltimore.

"The Healing of Arteries After Ligation," by Dr. J. Collins Warren of Boston.

"The Etiology of Tetanus," by Dr. P. S. Conner, of Cincinnati.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended April 18, 1885.

Yemans, H. W., assistant surgeon. Detailed as medical officer revenue steamer "Corwin," during cruise, April 16, 1885.

Battle, K. P., assistant surgeon, when relieved to proceed to New Orleans, La., for duty, April 13, 1885.

Brooks, S. D., assistant surgeon. Granted leave of absence for ten days, April 16, 1885.

Items.

—In an examination on physiology some years ago at South Kensington, the question was put, "What is bile and what are its uses?" One candidate's answer was, "Bile is formed in the stomach, and is used for cleaning carpets."

—The *Obstetric Gazette* says that, in a case of dysmenorrhœa, very sensitive to the use of a sound, by lubricating the instrument with cocaine ungt., there was no further trouble in its passage.

—Dr. Szpilmann (*Berichte Deut. Chem. Gesellschaft*) finds that air, and still more pure oxygen, promotes the multiplication both of the bacilli of anthrax and those of putrefaction. Ozone, on the other hand, is fatal to the latter, but has no injurious action upon the former.

—Andeer (*Prager Med. Wochenschr., Centralbl. f. Klin. Med.*) calls attention to the fact that pure resorcin, in carefully-regulated doses, possesses valuable hypnotic properties. He has employed the drug in several cases, with good results.

—*Apothecary:* "Well, what do you want, what is it?"

Traveler: "Mr. Karr, I'm in a hurry."

Apothecary (furious): "Missed a car! What in thunder do you come to tell me about it for?

Don't you know enough to stand still and wait for the next one?"—*Life.*

—Powdered rice as a styptic remedy has a great effect on fresh wounds, much superior to oxide of zinc. By mixing from four to eleven per cent. of it with lint, and using the lint thus treated as a compress, it is very effectual and more valuable than subnitrate of bismuth, salicylic acid, or carbolic acid.—*Rundschau*, and *Exchange.*

—In the *Meditz. Obozrenie*, No. 21, 1884, p. 808, Dr. P. G. Rosanoff, of Zvenigorod, records a case of chronic hydrocele, in which complete cure ensued after wearing a well-fitted elastic bag for about six weeks. An examination of the patient about fifteen months later showed that he was still entirely free from the former disease.

—M. Monin (*Union Méd.*) recommends the following solution to be applied to the soft palate and back of the pharynx, for the relief of the irritative cough due to the elongation of the uvula:

Hydrochlorate of morphine,	4 grains.
Bromide of potassium,	1 drachm.
Tincture of coca,	2 drachms.
Glycerine,	1½ ounces.

—A collection of interesting documents relating to the life of Panfilo Custaldi, for whom the honor of the invention of printing has been claimed by patriotic Italians, have recently been discovered, and will shortly be published in the *Archivio Storico per Trieste, l'Istria, ed il Trentino.* It is not stated that these documents give any support to the claim above alluded to; but it appears that Custaldi, who was a physician practicing in Capo d'Istria, was already practicing the art of printing with movable types as early as 1461, in partnership with two other residents in the same town.

—According to a law recently passed in the French Parliament concerning the elections to the Senate or to the Chamber of Deputies, no member of either body can at the same time hold any other official appointment under Government. Professors Charles Robin and Cornil, who have been recently elected as Senators, will have to choose between the Senate and the respective chairs they now occupy at the Paris Faculty of Medicine, the former as Professor of Histology and the latter as Professor of Morbid anatomy. It is anticipated that M. Robin will retire from his professorial chair; and it remains to be seen what will be the decision of M. Cornil, who is regarded as the favored candidate for the Professorship of Histology.

—At the recent meeting of the Tennessee State Medical Society, held at Nashville, the following officers were elected for the ensuing year:

President—Dr. Thomas L. Maddin, of Nashville.

Secretary—Dr. C. C. Fite, of Nashville.

Treasurer—Dr. Deering J. Roberts, of Nashville.

—At the recent meeting of the Alabama State Medical Society the following officers were elected for the ensuing year:

President—Dr. F. M. Peterson, of Greensboro.

Vice-Presidents—Dr. Starr, of Wilcox county; and Dr. Richard M. Fletcher, of Madison county.

State Board of Censors—Drs. Riggs, Dement, and Ketchum.

Councillors—Drs. Herbert, Goodwin, Bragg, J. B. Kendrick, Norris, Wheelan, Nicholson, Lowry, and Inge.

Members of the State Board of Health—Drs. Riggs, Ketchum, and Dement.

Orator—Dr. Bragg, of Lowndes.

The Association voted to meet at Anniston next year.

—Professor Sigmund Exner, in his work, *Die Innervation des Kehlkopfes* (Vienna, 1884), announces the discovery of a third laryngeal nerve —*nervus laryngeus medius.* This nerve is derived from the pharyngeal and laryngeal plexus formed by the pharyngeal branch of the vagus with other nerves, and enters the crico-thyroid muscle, which is also supplied by the external branch of the superior laryngeal nerve. The interarytænoid muscle is supplied by both upper and both lower laryngeal nerves, and, generally, each muscle is innervated by several nerves. The above conclusions are deduced from three lines of research:

1. Irritation of nerves in living animals.
2. Degenerations of nerves after section in living animals.
3. Examination of the larynx in children (post mortem).

—General Grant was able from his past military experience "to put himself in the place" of his medical attendants to good purpose. His reported remark to his physicians savors of true wisdom: "The doctors outside, I am informed, are writing about my case and talking about it, and some of them seem to think they know more about it than you gentlemen do; but it is like a time of war, when the men at home think they know more about it and how to do it than the generals who are in the field fighting."

QUERIES AND REPLIES.

Moon Blindness.

Dr. H. N., of Pa., reports a case of a man with what is popularly termed "moon blindness," and asks for a scientific explanation of the disease. A moon-blind person can see well enough by daylight or lamplight, but in the moonlight can see nothing but the moon and stars, terrestrial objects being quite imperceptible to him. Dr. N. thinks there were no fraudulent statements in the case.

Dilated Heart.

Dr. V. G., of Mexico, inquires what latitude, climate, and barometric pressure are most suitable in passive dilatation of the heart. The fact is proved by the British statistics, that a damp, cool, equable climate, on or near sea level, is the most favorable for such cases.

Please state in the columns of your journal how colorless iodine is prepared, and whether its action is interfered with by its being made colorless. G. G. Blank, V. S.

Dr. X., of N. C., asks whether solution of cocaine develops animalcules? We shall be glad to publish observations on this point.

DEATH.

Veirs.—April 5, 1885, in Jersey City, Dr. Charles O. Veirs, aged 44 years.

THE

MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

THREE CASES OF IDIOPATHIC ANÆMIA, WITH REMARKS; AND AN ANALYSIS OF THE CASES HITHERTO PUBLISHED IN AMERICA.

BY DR. J. H. MUSSER,

Of Philadelphia.

(*Continued from page* 554.)

ANALYSIS OF BLOOD.

Female, Idiopathic Anæmia. Dr. John Marshall. In 1000 parts.		Female. Healthy. Becquerel and Rodier (modified). In 1000 parts.	
Water	800.1950	Water	791.10
Fibrin	4.9600	Fibrin	2.20
Albumen	59.7000	Albumen	70.50
Inorganic Salts	7.2410	Extractive matter	9.01
Iron	.1871	Fatty matter	
Fats and Extractures	2.1800	Salts, including iron.	
Blood corpuscles	125.5369	Blood corpuscles	127.00

Case 2. Idiopothic anæmia; partial recovery; relapse; subsequent cure.*

November 11, 1880. T. L.,, æt. 41, born in Pennsylvania, resides in Clearfield Co., Pa.; occupation, carpenter, past ten years; in winter engaged as lumberman; married; three healthy children; habits very good; has worked hard since a young man, in storm and sunshine; has had more than the average care and trouble falling to man; never had venereal disease, and no venereal excess.

Mother died of cancer of the uterus; father living and healthy; patient one of ten children living; the sisters, four in number, are in delicate health, others healthy; otherwise family history not definite, but believes there is no hereditary disease, either on the paternal or the maternal side.

When young was considered in delicate health, "having some kind of a scrofula." When twenty-one, and from then to twenty-five, was stout and hearty. Ever since then has been more or less delicate. Had measles. Twelve or fourteen years ago had an attack of dyspepsia; became debilitated and very miserable, remaining so the entire winter, during which he had an attack of pleurisy. For six or seven years was in fair health, when he had a similar dyspeptic attack; since then has been having more or less dyspepsia. The present trouble he dates from the harvest season of 1879. There was no exciting cause, but from that time became weaker and miserable, losing power to work and all ambition. Felt unable to work, yet continued at it until February; then he was taken ill, and confined to his house for two months. He lost his natural complexion, pain in the epigastrium and about the heart annoyed him, vomiting occurred at times, also diarrhœa with yellow stools with white curd in them. The diarrhœa and the epigastric pains were the first symptoms; in addition, lost flesh and strength—flesh rapidly. Appetite was lost. Throughout the summer and fall, until admission, suffered from pain at the heart, especially on exertion, with fluttering; at variable times, nausea or pain in the stomach, indigestion, a changeable, but generally poor appetite, and irregular bowels; debility also continued; had not gained flesh since the attack in February.

At present, his condition is as follows:

Considerably emaciated; skin muddy hue, soft

* Ward notes of writer as Med. Registrar; case under Prof. Pepper's care in Univ. Hospital.

and moist; conjunctiva pale; sclerotics not pearly white, but with a yellowish hue; hands pale, bloodless; mucous membrane of the mouth, the lips and the tongue very pale; hair and beard fully developed, black; eyes light brown; no tuberculous or scrofulous appearance.

Mental faculties normal; vision normal; when heart palpitates, a blowing sound is heard by him in the left ear, synchronous with the heart-beat; special senses otherwise normal.

Tongue pale, flabby, marked by the teeth, some papillæ prominent, no coating; in the morning, throat parched, appetite poor; no increased thirst; when hungry, or prior to meal-time, an empty sensation in the stomach, amounting at times to nausea. After eating, at times, weight and fullness in the epigastrium, flatulence, some slight regurgitation of food—not to mouth, but to a point behind notch of sternum, relieved by swallowing; this has been a constant and annoying symptom. Bowels now are regular and of a natural color. Suffers from pain in the middle of the sternum at the fourth rib; flatulence seems to increase it, exertion causing palpitation increases it; at times the pain radiates towards the axilla—more towards the left—extending on that side down the arm, not as a pain, but as a dumb, aching sensation; the left pectoral is sore to pressure at times.

The cardiac impulse is seen in the fourth interspace, at the nipple, and in the fifth, 1½ inches inside the nipple line. A distinct epigastric impulse is seen; area of cardiac dullness slightly increased. Full inspiration diminishes the area of dullness. Heart beating 120; pulse weak, compressible, not full. When admitted, at the first right rib, and in the first interspace, a systolic murmur was heard, transmitted into the vessels; since the heart has been slowed by digitalis, a slight systolic low-pitched murmur is heard at the third rib, diminishing, yet heard at the apex, heard also louder at the aortic cartilage, louder and higher-pitched at the head of the first rib. It is also heard at the pulmonary valve, but less strong. The murmur is also transmitted in the vessels of the neck, louder right than left, and in the abdominal aorta. On the right side a loud venous murmur is heard; on the left it is not so distinct. Similar murmurs are heard also in the iliac vein. Stomach dilated, apparently pressing upward. At the right edge of ribs, between median line and ribs, a small mass yielding dullness, noticed. Urine had a slight trace of albumen, otherwise normal.

November 20. Urine contained a trace of albumen when admitted, but now free from it. No abnormal sediments.

Blood is thin and pale; enumeration of blood-corpuscles shows 2,210,000 red cells to the cubic millimetre, and 1 white to 147 red ones.

Improvement was marked under treatment by rest, careful diet, and tonics. He left the hospital an improved, but not cured, patient.

Re-entered hospital March 3, 1881.

During interval, his condition as follows: First two months, he was weak and very tired; could not digest food; lost flesh.

He then began to improve, and ever since has been gaining strength slightly. Before the last admission, for some time had slight pain about heart, with palpitation, especially on exertion.

When admitted: Much paler and rather more sallow than when discharged, mucous membranes very pale, sclerotics pearly, conjunctivæ very pale, extremities bloodless. Does not complain of cold extremities. Fingers not clubbed. Slight puffiness of eyelids, and œdema of ankles at night. Appetite fair, tongue slightly coated, very pale; digestion very good; since discharge, looseness of bowels, but no diarrhœa. Stools thin, light clay-colored.

Murmurs in heart and veins very distinct; more so than when previously in house. Dyspnœa and palpitation on exertion; pulse 108, small, compressible.

Special senses good. Slight failure of memory. Loss of energy and of strength quite well-marked.

No hemorrhages. Examination of blood shows 1,000,000 red cells, and a proportion of 1 white to 40 red.

No enlarged lymphatics, or enlarged liver or spleen. Urine normal.

Soon after the above notes were taken, the patient left the hospital. It was learned by the writer, from reliable authority, that he had fully regained his health, and was able to engage in business. This was ascertained two years after the patient was under treatment.

Case 3. Idiopathic anæmia; improvement; relapse; subsequent course unknown.

Dennis French, æt. 44, saloon-keeper; miller in early days. Past fifteen years addicted to free use of liquors. In the army for six months, and then discharged for so-called organic kidney disease.

Since the war, complained of indefinite symptoms, which might be resolved into the term debility. He never had any special cause for mental strain or depression. Family history good. Aside

from the above complaint, the patient's previous health was very good.

Among the symptoms of his later years that were especially noticeable, were a burning sensation in his tongue, amounting to a high degree of soreness the past two years, feeling as if it would drop off, and as if he had coals of fire in his mouth.

It was only about the holidays (1882) that the definite symptoms of anæmia developed. He noticed weakness and aching on the slightest exertion, with almost intolerable dyspnœa and palpitation. These symptoms increased, the latter becoming so pronounced as to prevent him going up stairs the past five weeks. Pallor of the countenance noticed at this time by wife.

Condition, April 2, 1883—occasion of first visit:

General Appearance. — Emaciated (lost thirty pounds); extreme pallor, characteristic dirty yellow hue of skin; sclerotics dead-white; ears, fingers, and mucous membranes bloodless; hair abundant, soft, and leaden gray; slight œdema of ankles and puffiness of eyelids; extremities cold, wrists especially; generally in recumbent posture.

Mental Symptoms.—None pronounced, save loss of memory and inability to concentrate his mind. Special senses about normal. Some dimness of vision; subjective noises in the ears, causing great distress, accompanied by pulsations in the head; the throbbing especially noticeable on the top of the head.

Digestive Symptoms. — Tongue pale, pointed, clean, very sore, without any appearance of irritation; appetite very poor; digestion slow; no vomiting; some flatulence, and uneasy sensations; obstinate constipation; no hemorrhoids. Liver and spleen normal size; abdomen normally distended.

Respiratory Organs.—Extreme dyspnœa on the slightest exertion, and at times without apparent cause. Lungs normal. No cough. Nose-bleeding was pronounced and profuse, occurring once or twice daily, causing extreme exhaustion. It had continued since December of the previous year (1882), or about the time of the development of the anæmia.

Circulatory Organs. — Palpitation distressing after exertion or excitement. Pulse small, feeble and rapid (100 to 120). First sound of heart moderately loud but quick, with muscular element not pronounced. Second sound clear and ringing. At the base and the aortic cartilage very decided anæmic murmurs, influenced in loudness by pressure or change of position of patient, transmitted to the carotids, and generally soft and low in pitch. In the jugulars and the jugular sinus, a loud continuous venous hum. Area of dullness of heart not increased, but square in shape. Apex in normal position, but found with difficulty. Impulse feeble. Aorta pulsated in epigastrium. Veins of neck appeared full. No murmurs over the head.

Urine clear in color, passes frequently Oiij. in twenty-four hours: especially abundant at night; generally free from deposit. Sp. gr. 1017. Acid reaction. Quantitative analysis by Dr. Marshall. No albumen or sugar.

P_2O_5,	= .146 per cent.	=	2.46 grms.
Urea,	= 1.5 per cent.	=	25.28 grms.
Uric acid,	= .017 per cent.	=	28.645 grms.
N_aCl,	= .565 per cent.	=	9.52 grms.

Microscopically, nothing found.

Blood.—First examination, April 10, 1883, by Dr. W. E. Hughes. Very watery; 570,000 red cells per c. mm.; 2,000 white per c. mm.; 1 white to 285 red. Many of the red cells larger than normal; some at least twice the usual size and some smaller than normal. Many of them tailed and otherwise irregularly shaped. White corpuscles quite large, otherwise normal. Color of red fully up to normal.

Second examination, June 15, 1883, by Dr. Burgy,* 660,000 red; 170,000 white per c. mm. Many microcytes.

Third examination, February 17, 1884. Red corpuscles 1,600,000 per c. m.; white cells 20,000 per c. m. Microcytes in considerable quantity.

Treatment.—

℞. Tr. ferri chlor., Tr. digitalis, āā ℥ss.
Hydrarg. bichlor., ½ gr. M.

Sig.—Thirty drops; taken daily in water; regulated diet; laxative pill.

Under treatment improved rapidly, so that as far as strength was concerned, he was about all summer and the succeeding fall and winter, until December, being able to do light work, walk long distances and carry heavy packages, though with some inconvenience (dyspnœa).

In December, had a relapse; debility and dyspnœa, with some loss of appetite, being most marked. He then passed from the writer's observation. It is to be regretted he never would permit an ophthalmoscopic examination. A note as to the temperature record was overlooked in the above history. For some time he had daily feb-

*Dr. Burgy was then engaged in blood examination at the writer's suggestion. His observations were recorded in a thesis presented to the Faculty of the University of Pennsylvania, and for which he received distinguished merit.

rile exacerbations, rising to 102° or more. The exact record has been lost.

Remarks.—There was no difficulty whatsoever in recognizing the nature of the disease in the first and last cases reported. The profound anæmia, the cardiac and vascular murmurs, the preservation of adipose tissue in one, the absence of organic disease, together with the results of the blood examination, were sufficient points to establish the diagnosis. Case 2 was rather more obscure; the marked gastric symptoms, with the presence of a suspicious induration in the epigastrium, led us to consider the diagnosis of carcinoma of the pylorus. The anæmia was not as great on the first visit, and looked not unlike the anæmia of carcinoma. As is well known, this is profound, and the reduction of the red cells may be as low as in our case. In one of the writer's cases, the red cells were reduced to 2,225,000 per c. mm., and 1 white to 225 red were counted. There was extensive carcinomatous disease of the pancreas, duodenum, and lymphatic systems.

The return of our patient dispelled our thoughts of malignant disease, for the blood was much reduced in corpuscular richness, without the advancement of organic disease; in fact, with the disappearance of dyspeptic symptoms almost entirely.

The following remarks are suggested by a study of the cases detailed, and the importance of the subject will warrant our trespassing on your time a few moments for bringing them to your notice.

1. *Ætiology.*—It is of interest to note in Case 1 the possible relation of the development of the disease to shock, as observed by Dr. Curtin, whose views have been anticipated by others. The age and sex of our patients presented some variations from the usually accepted averages of the Germans on these questions. Two males beyond forty, and one female, mark them. The dyspeptic attacks possibly had some casual influence in Case 2. But the cause of the third case is quite obscure. None of the cases were deprived of food or suffered any want.

2. *Appearances of the Blood.*—The blood examinations revealed the characteristic changes found in this form of anæmia. In our cases, however, nucleated red corpuscles were not seen, Changes in size and shape were marked in Cases 1 and 3. Some cases of chlorosis and of puerperal anæmia have lately been under the writer's care. The examination of the blood will be subjoined for comparison. It will be observed that in the three varieties there was a reduction in the number of red cells, but that in the cases of idiopathic anæmia changes in the size were most marked, and the reduction in number was infinitely greater.

M. F., fem., æt. 19; *chlorosis;* red corpuscles, 2,600,000 per cmm.; normal in appearance; no microcytosis; unusual number of collections of Max-Schultze's granules, large in size, with distinct nuclei.

Mrs. C., æt. 37; *anæmia of pregnancy and puerpurium;* red cells, 3,080,000; only slight variations in size; few Schulze's granules. Mrs. C.'s anæmia was most profound, reckoned by appearance and symptoms.

As has been noted by Professor Osler, the Max-Schultze's granules are absent in idiopathic anæmia. The extreme reduction in red cells, the changes in size, shape, and color, the adventitious cells (nucleated corpuscles), and the absence of Max-Schultze's granules, therefore, characterize the blood of this disease.

The extreme reduction in the case of French (III), with gradual increase in number, and subsequent recovery, is of extreme interest. Yet cases are recorded by Quincke, and others, where the reduction was far greater and recovery followed.* If he is correct, one should scarcely despair, from the number of red cells alone, in giving a prognosis.

3. *The Urine.*—Urea is said to be lessened, uric acid relatively increased, and phosphoric acid and the chloride of sodium diminished in idiopathic anæmia.† The following table indicates the comparative analysis of urine in health, in idiopathic anæmia, in chlorosis and in puerperal or secondary anæmia. The analyses were made by the efficient Demonstrator of Chemistry in the University of Pennsylvania, Dr. John Marshall:

	Normal.	Secondary Anæmia.	Chlorosis.	Idiopathic Anæmia. Case 1.	Case 3.
	per ct.	per ct.	per ct.	per ct.	per ct.
Urea.....	2.8	0.9	1.00	2.3	1.5
Uric Acid.....	0.06			0.087	0.017
Phosph. Acid..	0.20	0.956	0.134	0.13	0.146
Sodium Chlor..	0.80			1.12	0.565

The degree of anæmia, if reckoned by the blood examination, was more profound in the idiopathic variety. Yet the reduction in the percentage of certain constituents of the urine was greater in the secondary forms. One can conceive of an increased tissue-change, and the causes for it, in the more grave anæmia, especially in the fatal case, to explain the apparent

*Quincke's case, 143,000 per c. m.; Worm Muller's case, 360,000.

†See Muller, "Die Prog. Aern. Anæm." Zurich, 1877; Eichhorst, "Die Prog. Per. Anæm.," Leipsig, 1878.

discrepancy. In the instances above, we find a diminution in the amount of urea, phosphoric acid, and chloride of sodium, and, in one case, of the uric acid. The circumstances that influence the secretion of the various elements of the urine are so numerous, that it is almost impossible to reckon the value of analyses, unless definite circumstances are present, from which generalizations can be made.

The importance of the subject is sufficient apology for the following observations, which, though they appertain to, are not strictly of the subject. The reduction of the acid is possibly significant, in the cases of chlorosis. It has been held by a German observer that the conversion of the iron of the body into hæmoglobin, or rather the taking up of the iron by the corpuscles, is impossible without the presence of a certain amount of acid in the blood. He claims that a deficiency of this acid is the essential lesion, so to speak, of chlorosis. As a corollary to these facts, he demonstrates by a series of cases the value of hydrochloric acid in curing the disease.

4. *Sympathetic Nerves.*—The negative results of the examination of the sympathetic ganglion tallies with the observations of Wilks, Pye-Smith, and others. It must be remembered that Queckett, in Addison's famous case, and Brigidi (*London Med. Record*, vi., 430,) found marked anatomical changes. The evidence has not been sufficient to point to the sympathetic system as the primary organic affection in this disease.

5. *Bone-Marrow.*—In some cases (Pepper, Osler, Cohnheim, Scheby-Buch, Hughes, etc.) of so-called idiopathic anæmia, the marrow of the bones was seen to have reverted to its fœtal structure. In our cases this reversion was notably absent, the yellow marrow not being replaced by red marrow.

6. *Blood Clots.*—Attention should be called to the black specks, or possibly pigment granules, in the blood-clots found in the heart. It is to be regretted their exact nature was not determined, and this remark was made in order that they may be looked for by future observers.

7. *The Chemical Examination of the Blood.*—The most striking feature is the reduction of iron in the blood, and this, taken with the deposition of iron in the tissues (siderosis), in the shape of granules (Quincke), and the increased amount of iron in the urine (Reynolds, in Purser's case *), cells. As this is the only analysis of the blood would go to show a destruction of those elements in the blood which held this substance—the red ever made that is known to the writer, more data will have to be collected in that direction, before conclusions can be drawn.

8. *Course and Termination.*—Finally, the course and termination of our last cases are worthy of attention. As is well known, relapses are extremely liable to recur in persons apparently cured of this affection. Caution should be used in pronouncing a cure. Case 2 was heard from, two years after dismissal from the hospital by the writer, and was pronounced by the informer a strong, healthy man. It is worthy of observation that this case improved under removal from his home in the mountains to a city hospital. On the other hand, one of Frerich's cases, recorded by Eichhorst, did not recover until he was sent to the country. Case 3 has been lost sight of. Although he improved very much, it cannot positively be said a cure took place.

THE WORK OF OBSERVERS IN AMERICA ON IDIOPATHIC ANÆMIA—AN HISTORICAL NOTE.

The English and Germans, most deservedly, have been accredited most of the honor for establishing this disease as a distinct clinical entity. It is almost beyond cavil that Addison was the first to distinctly impress on the profession the clinical and pathological nature of this affection as distinguished from like disorders. Others had described isolated cases, there is no doubt, but he had fixed it, so to speak, in nosology. At the same time the labors of our own countrymen, very early in the history of the disease, are worthy of serious attention and high honor. There is no doubt Channing* and his associates were perfectly familiar with fatal anæmias, independent of, or connected with, pregnancy and uterine disease. This was as early as 1842, or seven years prior to the publication of one of Addison's† cases. One of his observations was made in 1832. The publication of his series of cases were antedated only by the publication of the following isolated cases, which were referred to by Pepper,‡ and included by Pye-Smith‖ in a very exhaustive table of cases of idiopathic anæmia: Combe, 1823; Andral, 1823; Marshall Hall, 1837; Piorry, 1840. There can be no doubt the observations of Channing were made inde-

*Purser, Dublin Quarterly Jour., 1877.

*Channing, New Eng. Quart. Jour. Med. and Surgery, 1842, No. 2, "Notes on Anæmia, etc." Musser, J. H., Medical News, Oct. 7, 1882, "Historical Notes on Progressive, Pernicious, or Idiopathic Anæmia."

†Med. Times and Gaz., March, 1849.

‡Pepper, Am. Jour. Med. Sciences, 1875.

‖Pye-Smith, Idiopathic Anæmia, Guy's Hospital Reports, 1882.

pendently of any other ones; the singular confessions of ignorance of the nature of the cases and of want of knowledge of any writings on similar ones, and the faithful and accurate description of them, coupled with the scanty dissemination of medical knowledge in that era, point irresistibly to the above conclusion. It is extremely bracing to moral medical courage to read this quaint article and feel the force of the honest expressions of ignorance of the obscure disease; it is a record of facts.

There is no doubt similar cases had been observed from this time to the publication of the next paper (1875); Osler tells us Prof. Howard taught to his classes, in 1869, the existence and symptoms of idiopathic anæmia. Flint,* in his "Clinical Medicine," says that he had described, in 1871, cases of degeneration of the gastric tubules, which were no doubt cases of idiopathic anæmia. The records of American medicine do not yield any observations, however.

Prof. Pepper,† in the latter part of 1875, published an exhaustive article. He considered the relations of this disease to other forms of anæmia, referred to the observations of previous contributors, discussed the clinical history, the course, the anatomical characters, and the diagnosis. He suggested the name *anæmatosis*, and was the first to suggest that the essential lesion was disease of the bone marrow, and that it was simply pseudo-leukæmia of the myelogenic variety. His observations were afterwards incorporated in a joint article by himself and Prof. Tyson, and published in *Virchow's Archiv*. The same year Dr. Chadwick,‡ of Boston, published a very interesting case.

The next contribution of any length was made to the International Medical Congress in 1876, by Prof. Howard.‖ Bradford had reported, however, another case in the *Boston Journal* a few months previously. Prof. Howard reported four cases, analyzed a large number, and discussed the relations and pathology of the disorder. He concluded that all forms of anæmia may take on a progressive and pernicious character, and that, up to that time, we were not warranted in making a distinct variety of anæmia, called "progressive, pernicious."

Among the most important contributions to the study of idiopathic anæmia few are of greater value than those of Prof. Osler,* formerly of Montreal, now of this city. Together with his colleagues, his contributions continue to the present time, beginning in 1877 with the report of a case, in conjunction with Prof. Gardner. Not only has he contributed to our knowledge of this disease, but he has made extensive researches into the changes the blood undergoes in health and disease. He confirmed the observations of Pepper, and regarded this variety of anæmia a myelogenic form of pseudo-leucocythæmia. His papers include careful observations of the size and shape of the blood-cells, and of the marrow-cells.

In 1879, Dr. Hutchinson, in a very complete clinical lecture,† detailed one case, referred to several others, gave the result of his analysis of thirty-two cases, and a resumé of our knowledge up to that time. The four cases were males; one was fifty and another twenty-five years old. Hutchinson called attention to the influence of shock, worry, grief, etc., in the causation of the disease. In one, grief at the loss of his wife; in another, grief at the loss of his daughter; in a third, business worry, were powerful ætiological factors. One of his patients was a rich manufacturer. Cod liver oil and iron seemed to be remedies that were of service in his cases. The one detailed in full will be found in the succeeding table.

The studies of F. P. Henry,‡ of Philadelphia, in blood diseases, are well known. For his efforts he received the Cartwright prize of the College of Physicians, New York. In addition to this essay he has published numerous observations on the appearances of the blood in various diseases.

The remaining contributions to the study of idiopathic anæmia in America, are the reports of isolated cases with brief remarks on them. They will be included in the appendix table, in abstract, with the publication references to each one.

In our text-books on the practice of medicine,

* Flint, N. Y. Med. Jour., 1871.

† Pepper, Am. Jour. Med. Sciences, October, 1875, "On Prog. Per. Anæmia or Anæmatosis."

‡ Chadwick, Boston Med. and Surg. Jour., 1875.

‖ Howard, Trans. Internat. Med. Cong., Phila., 1876.

* Osler and Gardner, Canada Med. and Surg. Journal, 1877; Osler and Bell, Trans. Canada Med. Association, 1877; Osler, Centralbl. Med. Wissensch., 1877, No. 28; Osler and Gardner, Centralbl. Med. Wissensch., 1877, No. 15; Osler, Centralbl. Med. Wissensch., 1878, No. 26; Osler, Canada Journal Med. Science, 1881.

† Med. News, 1879.

‡ F. P. Henry, Observations with the Hæmocytometer on the Globular Composition of Blood and Milk; Cartwright prize essay, 1881 (Reprint); also, Archiv. of Med., New York, Seguin.

notice is given of this affection by Flint,* Da Costa,† Bartholow,‡ and Loomis.‖

Flint says, we know nothing of the primary morbid changes; the clinical characters are sufficiently distinct for its recognition as an individual affection; women are more liable to it than men, and middle-age more than any other period. He sketches very well the characters of the disease, in a concise chapter. Treatment is generally futile he believes. Bartholow also gives to this form of anæmia a separate chapter, calling it prog. per., essential anæmia, or malignant anæmia. Causes: women, 15 to 40 years old, pregnancy, uterine hemorrhage, and bad hygienic surroundings. Fever, he thinks, is a constant symptom. "No cases of cure have been reported." Treatment, he believes to be useless. Otherwise his account tallies with that of other observers; he does not lay sufficient stress on the blood changes, however.

Under the heading "Progressive Pernicious Anæmia," Loomis devotes a chapter to this affection. The disease occurs most frequently in women and between the ages of twenty and forty-five, according to this authority. He shows its entity apart from simple anæmia, leukæmia, pseudo-leukæmia, and chlorosis, and believes the affection of the bone-marrow is entirely secondary. The supervention of this form on a benign anæmia, or on chlorosis, he believes to be uncertain. He does not lay stress on the use of any special drug in the treatment of the disease.

Da Costa, in his "Medical Diagnosis," treats of the affection under the head of anæmia, pointing out its symptoms, and pointing out its possible near relation to pseudo-leukæmia.§

(*To be continued.*)

THE "HAMMOCK" MODE OF APPLYING THE PLASTER JACKET.

BY A. B. HIRSH, M.D., Of Philadelphia.

What physician who has ever treated spinal deformities has not lost temper when using ordinary *suspension* to apply the plaster jacket, when the patient has almost been strangled by a sudden slipping of the straps sustaining the head, or has fainted or become utterly unmanageable? Then, too, there is the discomfort to the patient of keeping up a constant muscular strain in a peculiar position for a more or less lengthened period; while if (as usual) he or she be young in years, the fear or even fright of the patient adds to the unpleasantness of the whole affair. Of course, the expense of the necessary tripod and accompanying apparatus is also not the least item to the practitioner.

These thoughts were suggested by seeing Professor Nancrede recently apply a plaster jacket at St. Christopher's Hospital before his polyclinic class. No originality is, I believe, claimed—an English surgeon first having suggested the hammock for this purpose. In this case, a poorly-nourished Irish lad, aged some eight years, had the corset applied for a posterior dorso-lumbar curvature, although the doctor explained that any and every variety of spinal deformity could be treated by a modification of the same method.

A piece of ordinary "ten-ounce burlap"—the bagging used to wrap around rolls of carpet, etc.—some seven feet in length and three feet in width, was suspended between the two sides of the room. Each end of the canvas has a "casing" about one and one-half inches wide, strongly sewn, and a rope drawn through the space thus made (so as to "bunch" the end), which is then attached to a heavy hook or ring screwed into the wall with a compound pulley and rope to render taut the swing; here we have the convenient hammock as required.

The lad, devoid of clothes except a woolen undervest, was next placed therein, face downwards and with hands and feet extended—the former grasping the sides of the hammock, so as to exercise some extension—and a hole was cut through the bottom of the swing opposite to the nose and mouth, so as to allow him to breathe easily. Care was taken to fit the usual abdominal pad, and to keep the hammock well balanced. The hammock was then cut transversely on a level and down to the iliac crests; the same was done at the upper margins of each axilla. The flaps thus formed were folded around the body, the surplus portion removed, and the whole roughly sewn up, thus forming a second undervest around the woolen one. Starting from above, the bandage was now carried around the body until the deformity was completely covered, the canvas being, of course, included in the turns. The plaster was allowed to set, and the patient relieved from his swing by cutting loose the burlap above and below the jacket, and the procedure was complete. At no time was discomfort complained of, as the little

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* Flint, Clin. Med., 1879. Prac. of Med., 1884.

† Da Costa, Medical Diagnosis, 1884.

‡ Bartholow, Prac. of Med., 1880.

‖ Loomis, Practice of Med., 1884.

§ See also American Edition of Reynolds' "System of Medicine." Complete article by Dr. Hartshorne.

one even joked about the novelty of his situation.

The professor proceeded to explain that this hammock achieved all the good that Sayre's swing did, and obviated all its objectionable features. On the latter, the curves above and below the gibbosity were straightened out, as well as any lateral deviation, and thus the apparent increase in height was obtained, while the weight of the body, by a true process of leverage, effected through the over-curved portions of the spine, above and below, theoretically tended to separate the softened and diseased anterior surfaces of the vertebral bodies. Whether this latter result was desirable, if obtainable to a marked degree, was more than doubtful in the lecturer's mind, as he thought all that should be aimed at was to remove the weight of the trunk, head, and upper extremities—one or all, according to the portion of the diseased vertebræ—and to place the column in the best position attainable, for anchylosis and future usefulness. In the same way, the prone position in the hammock effaced the curves, and, by leverage, tended to separate the anterior surfaces of the vertebral bodies. The degree to which the hammock was allowed to "sag" would determine the amount of extension exerted upon the spine.

This method was cheap, comfortable, and *always* available, without any special apparatus beyond bagging, ropes, and strong screw-hooks, staples, or some similar contrivance. The patient might be allowed to swing for hours until the plaster was perfectly dry, thus obviating the risk of cracking of the jacket, which sometimes happens when the patient is, perforce, taken down too soon from Sayre's swing, on account of fainting, etc., as the professor had experienced in his own practice. The screaming, struggling, and terror, so common with children, is all done away with. It is the part of wisdom to place a mattress on the floor beneath the hammock, lest any part of the apparatus break and a serious fall result. The professor now always resorted to this method of applying the jacket, and was perfectly satisfied with it.

2130 *Master street.*

—To a recent meeting of the New York Pathological Society, Dr. H. Marion Sims presented a uterus, the seat of eight fibroid tumors, together with the appendages, which he had removed five weeks before for the relief of long-continued pelvic pain and frequent and excessive menstrual flow. The patient was now enabled to be about the room.

Hospital Reports.

MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

SURGICAL CLINIC OF PROFESSOR J. E. GARRETSON, M. D.

Reported by Theodore Stanley, M. D., Resident Physician at Medico-Chirurgical Hospital.

Use of the Surgical Engine.

Case 1. *Removal of Body of Sphenoid Bone.* This case is, perhaps, unique.

The patient, a lady from North Carolina, was afflicted with an osseous tumor which had originated at the base of the sphenoid bone, and which entirely filled up the posterior nares, rendering breathing through the nose impossible; the age of the growth was some eight years; the age of the patient about fifty-five. The physician of the lady, Dr. J. C. Walton, of Prospect Hill, accompanied her and assisted at the operation.

A diagnosis of the character of the tumor was secured by passing a stellated probe along the floor of the two nares until the obstruction was reached, and then thrusting forward the blade; the growth was also examined and explored by passing the finger from behind the velum into the naso-pharynx, which space was pretty thoroughly filled.

Prof. Garretson, before proceeding in his treatment, called attention to the complication as to position and relation of the bone involved, remarking that never before had a more refined opportunity occurred to him of exhibiting to a class the capabilities of that wonderful means in surgery, the surgical engine.

A surgical engine is, in effect, a mandril, capable of carrying and revolving a variety of instruments, such as circular saws, bits, burrs, etc., which mandril is encased in a metal tube, known as a hand-piece. The power used is various. At the clinic of the Medico-Chirurgical College, cog-wheels or electricity is employed; the last for delicate purposes, the former where irresistible power is demanded. In the present instance both agents were brought into requisition.

The lady being etherized, the problem of getting at a growth so situated was instantly solved by the making of a button-hole incision through the soft palate. A next step to take was to use a delicate chisel, curved on the flat, by means of which the soft tissues were removed from the underlying bony mass, a cut being previously made from top to bottom of the tumor.

At this point commenced the exhibition of a delicacy and a display of confidence as to an operative performance which could not possibly be attempted without the means in use. The reader is to consider that the seat of the operation was the body of the sphenoid bone, and that the performance being practiced through a minute slit in the velum, it was impossible to see, and that while it was necessary to operate in close relation with vital parts, exclusive dependence had to be placed on the sense of touch, as this was derivable through the shank of a burr revolving ten thousand times a minute.

The operation was completed in fifty minutes, the only part of the body of the bone left being the half-cut-away shell of the pituitary fossa—a

condition verified by the fingers of several surgeons present.

In responding to a number of expressions as to the probability of a fatal termination to the operation, Prof. Garretson remarked that he had on two former occasions removed by the same means the basilar process of the occipital bone without a single bad sign, and that such success inspired him naturally with confidence as to satisfactory termination in the present instance.

Result.—The patient, on recovery from the anæsthesia, breathed as freely as is usual through the nostrils. The cure was so rapid and so free from complications that she was able to return to her home in fifteen days. No brain or other kind of trouble exhibited itself.

A case of this kind occurring before the introduction into surgical practice of the engine, could certainly have found no cure but in the death of the patient.

Case 2. *Excision of Inferior Maxillary Nerve at Base of Skull.*—Case two refers to an operation devised, and now practiced several times, by Prof. Garretson, for excision of the inferior maxillary nerve at the oval foramen. The patient in the present instance was a gentleman from Burlington, New Jersey, long afflicted with an unbearable neuralgia of the region supplied by the tract. The performance commenced with an incision made in the shade-line of the jaw, beginning half an inch in front of the angle, and being carried up half the length of the ramus. Retractors being introduced, and the parotid gland lifted, a raspatory was used to clear a defined space on the exposed bone, which bone was removed by means of a revolving burr so that the nerve as it lay in the maxillary canal was freely exposed to the view of the class. A succeeding step excised the nerve, while the brain end, being taken up in the grasp of bulldog forceps, was followed by means of a burr until the posterior dental foramen was reached. This opening was next enlarged, great care being taken to keep as far as possible below the semilunar notch, and to avoid wounding the internal maxillary artery. A succeeding step was to pass the nerve through a fenestrated probe, which probe was pushed upward through the enlarged dental foramen until it touched the base of the skull at the seat of the oval foramen. Location of the proposed section secured after this manner, a sickle-shaped knife was passed, the cutting-face downward, and when this struck the fenestra of the probe, it was made to cut the nerve.

The reporter has now thrice assisted Prof. Garretson in this operation, and while it can only impress us as being one of great refinement, it in reality is made to show as neither a complicated nor dangerous performance.*

Case 3. *Section of Lower Jaw in Treatment of Epulo-Sarcoma.* Operations of this character are performed by Prof. Garretson either by means of a burr or a circular saw.

In the case here described, the patient was a lady coming from a neighboring town for the convenience of the accommodation offered by the wards associated with the college.

Diagnosis.—Epulo-sarcoma: position lower jaw, right side, tumor extending from position of bicuspid tooth to angle of bone.

Operation.—The lips being held out of the way by means of a peculiarly-shaped retractor, the central incisor tooth of the side was extracted, when an incision reaching to the hard parts was carried around the tumor, a large margin being allowed. Next followed a circular saw, its diameter being but little larger than a dime-piece. To avoid, in this step, the cutting of undesired parts, is assuredly a matter which demands the most careful handling of the instrument. It is to be remembered that the operation is practiced within the mouth, that blood is abundant, and that a patient is not to be etherized beyond the capability of recognition by the parts of the presence of a fluid capable of drowning; little is to be seen, the operator must feel his way in part.

The section in this instance was made in exactly seven minutes, a single artery requiring control by the ligature, a second yielding to tension. After-treatment consisted simply in the use of phenol-sodique, a mouth-wash consisting of a tablespoonful to an ordinary goblet of water being used frequently during the day.

Morphia is seldom or never used by Prof. Garretson as a sedative, he teaching that the agent interferes with the obtaining of happy results. Local pain is obtunded by free use of phenol undiluted. Chloroform as an anæsthetic is condemned as adverse to a satisfactory healing of wounds.

*Diagrams showing the steps of this operation are to be found in its author's "System of Oral Surgery," 4th Ed., page 874.

Medical Societies.

PHILADELPHIA NEUROLOGICAL SOCIETY.

A stated meeting of the Society was held February 23, 1885. The President, Dr. S. Weir Mitchell, in the chair.

Dr. H. C. Wood read a paper on chorea, and presented a patient with post-paralytic chorea of peculiar character. He also exhibited a dog suffering from chorea, chiefly affecting the hind legs and gave the results of some physiological experiments which seemed to point to the spinal origin of at least some choreas.

The discussion on Dr. Wood's paper was opened by Dr. Charles K. Mills, who said he did not fully agree with Dr. Wood in regard to the spinal origin of chorea. As to the treatment of such a case as he presented with movements limited to one limb, he thought that nerve-stretching might give at least temporary relief. He mentioned cases of athetosis which had been operated on in this way, in which the movements remained away for many months. He also mentioned a case of spastic paralysis in which nerve-stretching proved partially successful.

Dr. Wharton Sinkler said he could not agree with Dr. Wood's spinal theory if he meant to apply it to children.

Dr. A. J. Parker referred to the researches which Dr. Dercum and he had made some time ago, and which had been presented to the Society. He said that one inference that might be derived from their experiments was that certain

choreic, as well as other convulsive movements, were not of spinal origin, but were due to disturbance of the equilibrium of the entire nervous system.

Dr. Dercum made some remarks to the same import.

Dr. Chas. K. Mills exhibited the Brain and a cast of the skull of James Burke, a delusional monomaniac, who killed several persons; also the brain of L. W. Beach, the uxoricide.

Dr. J. K. Mitchell read a paper on

A Case of Paralysis, with Hypertrophy of Muscular, Cutaneous, and Areolar Tissues.

LEWIS BRINTON, M. D., *Recorder.*

A stated meeting was held March 23, 1885. The President, Dr. S. Weir Mitchell in the chair.

An abstract of the paper by Dr. J. T. Eskridge on

Tumor of the Cerebellum with Monocular Hemianopia,

which was presented at the January meeting of the society, and the discussion on which was postponed, was read.

The patient, Elizabeth B., æt. 32, married, housework, was delicate and nervous. Her father, mother, and eight brothers enjoyed good health. So far as she knew, none of her relatives had suffered from cancer, phthisis, or other nervous affections. She had never had convulsions, and was well until her ninth year, when she contracted scarlet fever. Convalescence was slow, and she was left deaf in the right ear. There was no history of chronic otorrhœa. At the age of nineteen she was married. Her husband, whom she nursed and slept with during his illness, died six years later of consumption. During this union she conceived twice, but aborted each time about the third month. When she was twenty-four years old, she had an attack of inflammatory rheumatism lasting nine weeks. During the last few years her health had not been good. She had suffered from indigestion and some uterine ailment. At her menstrual periods she had had left-sided migraine. In November 1882, she was married the second time.

At that time she was feeling tolerably well, but soon after this marriage she began to suffer from severe and more or less constant headache.

The seat of pain changed from time to time. Sometimes it was in the back of the head, at others in the right or left side, but most frequently it was complained of in the top and frontal region. In February, three months after her marriage, the right eye became very painful, and the right arm and leg numb. The sensation of flashes of light were noticed in the eye when the lids were closed. At that time vision was very poor in the right eye, but subsequently it improved slightly. Soon after the beginning of the trouble in the right eye the left became similarly affected, but vision in this eye did not improve. Her last menstrual period occurred in April.

Shortly after the cessation of the menstrual flow, she began to vomit early in the morning, and sometimes during the day. The vomiting was never connected with taking food. By June she began to be troubled with vertiginous sensations when in the erect posture. Pain on the top and left side of the head was quite severe and almost constant. When she was admitted to the hospital of the Jefferson Medical College, in the latter part of July, vomiting and headache were the most prominent symptoms complained of.

Assisted by Dr. Parrott, one of the resident physicians of the hospital, I made the following observations of her condition soon after her admission into the medical ward:

She was pale, anæmic, and much emaciated. There was no apparent special cachectic appearance. No tremor or twitching of the muscles was observed. Grasp of the left hand fairly good, that of the right greatly diminished. Walking seemed at first attempt impossible, but by persuasion she was able to walk a few steps between two assistants. The difficulty in locomotion appeared to be due to several causes: want of confidence in her ability to keep from falling, the paretic condition of the right leg, and ataxic state of the muscles of both legs. By a strong effort of her will she was largely able to overcome the ataxia. Walking with eyes shut was more difficult than with eyes open. After considerable effort on her part, she succeeded, with closed eyes, in turning around, and in standing erect while her feet were close to each other. With closed eyes it was impossible to get her to walk forward or backward unless she was partially supported by two assistants. She was kept in the erect posture only a few minutes, but the exertion brought on such a degree of prostration, attended by pallor, nausea, and vomiting, that I feared to again test her ability to walk. This attack of vomiting lasted, with great distress, more than an hour. Electro-muscular contractility to the faradic current was nearly equal on each side, and slightly increased over the normal. Patellar reflexes were diminished, but about equal on both sides. The tongue in forced protrusion deviated slightly to the left. Facial muscles appeared to be unaffected. Speech was slow and hesitating, but articulation good. Left pupil normal, right slightly dilated. Both reacted to light, but the left to a greater degree.

Special Senses.—Sensations of pain, touch, and location were equal on both sides and well preserved; hearing, in right ear destroyed since childhood, in left fairly good; smell unaffected; taste, abolished on the right side, normal on the left; sight—with right eye, fingers were counted at ten feet, with left, at six feet. The field of vision in the right eye was good, but in the left hemianopia of the temporal side existed and apparently extended up to about the median line. On examining the eyes with the ophthalmoscope pronounced optic neuritis descendens was found in both eyes.

Mind was clear, but she was hysterical and exceedingly emotional. To such a degree were the emotional faculties manifest that had there been no ocular lesion there would have been great danger of mistaking the case for one of pure hysteria. Indeed a very careful physician of many years' experience, who had examined her the day before I saw her, not knowing the condition of the eyes, pronounced the woman's condition to be pregnancy complicated by hysteria. This he did after he had been apprized of the fact that another physician had diagnosticated brain tumor.

She vomited three or four times daily. August 6 the following temperature observations were made. The weather was clear, temperature in shade 78°.

TEMPERATURE.

Axillary, R 98.6°; L 98.6°.

Head:			
Anterior frontal station,		R 98.4°	L 98.4°.
Posterior	"	" R 98.5°	L 98.6°.
Superior	"	" R 98.4°	L 98.4°.
Parietal		" R 99.2°	L 98.6°.
Rolandic		" R 98.5°	L 99.1°.
Occipital		" R 99.4°	L 99.1°.
Posterior central		" 99°.	
Anterior	"	" 99°.	

During August and September the progress of the disease was gradual, and no change in the symptoms was noted beyond increasing difficulty to stand, severer paroxysms of headache, and development of mental aberration during the latter part of the afternoon and early evening. At these times she sobbed, cried, and talked incoherently. Early in October she was transferred to the Woman's Hospital. About the middle of December she became unconscious, and on the 24th of the same month uterine contractions commenced. The next day, shortly before labor was completed, she died. The child was rapidly delivered by the forceps, but it was still-born.

Through the kindness of Dr. Emma V. Boone, pathologist to the Woman's Hospital, I obtained the morbid growth found in the brain, with a short account of the post-mortem made by her. The patient was admitted to the Woman's Hospital at so late a stage of the disease that she was unable to give a connected history of herself. Dr. Boone, who never saw the woman until after her death, knew nothing of her history, and did not expect to find anything in the brain peculiarly interesting. This apology is due to Dr. Boone, who was surprised to learn that the case had been carefully studied early in the disease.

"Autopsy fifteen hours after death: Rigor mortis complete. On opening the cranium, the dura mater was found to be congested and thickened over the convexity of the brain. Longitudinal sinus contained dark coagulated blood. Left side of pia mater markedly congested (post-mortem?). Increase of fluid in both lateral ventricles. On cutting through the tentorium, a nodular tumor, the size of a large horse-chestnut, was found resting on the upper surface of the right lateral hemisphere of the cerebellum. Other portions of the brain appeared normal. The optic nerves were not critically examined. Thoracic cavity: On the right side pleuritic adhesions were extensive, and the lung markedly congested. Left lung normal. No increase of pericardial fluid. Right ventricle of heart occupied by a fibrinous clot; left ventricle contained dark clotted blood. Abdomen: Uterus extended to umbilicus. Placenta, which was undelivered, showed signs of degeneration. Ovaries in iliac fossæ. Spleen soft and friable. Left kidney was somewhat enlarged, its capsule abnormally adherent, and the ureter, dilated at its upper portion, contained pus. Right kidney was larger than the left, and its cortical substance, slightly decreased, was the seat of several small abscesses. Its pelvis and ureter was dilated and contained pus. Vessels of stomach were injected. Liver was pale and presented evidences of fatty degeneration."

The tumor was found, on microscopic examination by Dr. Formad, to be sarcomatous, of the spindle-cell variety.

Remarks.—Monocular hemianopia, which was present in the case just reported, is rare, and peculiarly interesting in connection with brain tumor. The most frequent forms of hemianopia are those in which both right or both left sides of the retinæ are blind; next in frequency are those in which the temporal halves of the fields are blind. The least frequent and very rare are cases in which the nasal sides of the fields are absent. In the first variety in which the homonymous sides are affected, the blind fields are usually sharply defined and reach up to the median line, but in cases of nasal or temporal blindness the fields are apt to be irregular (Noyes, "Diseases of Eye"). According to Ferrier's first conclusions (Ferrier, "Functions of the Brain," 1876), the region of the angular gyrus is the psychological seat of vision; but the riper and repeated work of Munk, together with the investigations of Wernicke and Stilling, and the subsequent observations of Ferrier, point very conclusively to the cortical substance of certain portions of the occipital lobe as the centres of vision.

Monocular hemianopia, according to Noyes ("Diseases of the Eye"), can take place only by lesion of one nerve in front of the chiasm. He states that Mauthner reported one such case without autopsy. In the case that forms the subject of this article the temporal side of the field of the left eye was absent; the field of the right eye was not contracted. The blind area was sharply defined, and reached up apparently to the median line.

The electro-muscular contractility was increased, but the patellar reflexes were diminished on both sides. I am not aware that the condition of the reflexes in cerebellar lesions attended with ataxic symptoms has been thoroughly studied. Granting that they are usually increased, which I think is doubtful, the condition of the patellar reflexes in the present case could be accounted for from the exhausted state of the patient invariably induced by exertion, and that only to an extent sufficient for a thorough examination. I have observed in many persons who were in apparently good health the knee jerk to be greatly diminished by exhausting walks.

The recent and interesting experiment of Prof. Luciana, who has succeeded in removing the entire cerebellum of a dog without destroying the life of the animal, will help to explain why the patient was able to overcome, by will-force, her ataxia in walking to a great extent. Herbert Spencer, Jackson, and Ross, believe that the cerebellum has a tonic invigorating influence over the muscles. The experiment of Luciana tends to confirm this view. He found, after the removal of the cerebellum, during the stage of irritation resulting from the operation, that symptoms of incoördination were present; but as recovery advanced, "however, these disappeared, and a kind of muscular asthenia or loss of tone took their place."—(*Medical Record*, Dec. 27, 1884.)

If the sense of taste is located, as inferred by Ferrier, in a portion of the temporo-sphenoidal lobe (subiculum) of the opposite side, I have no theory to offer in explanation of the absence of the sense of taste on the right side of the tongue in the present case, except it occurred through pressure on the chorda tympani nerve, which is the gustatory nerve to the anterior portion of the tongue.

The cerebral temperature observations in this case corroborate the conclusions at which I had arrived from the study of cerebral surface temperature in other brain diseases, viz., "that a high head temperature extending over a considerable period, while the axillary heat was normal or below, pointed to organic lesion of the brain or its membranes;" and further, that I "was not yet satisfied that surface thermometers would enable us to locate lesions in different portions of the brain with sufficient accuracy for general diagnostic or therapeutic purposes"—("Transactions of the College of Physicians of Philadelphia," third series, vol. vi.).

The discussion was opened by Dr. Charles K. Mills, who said that Dr. Hughes Bennett had reported a remarkable case of brain tumor where there was no neuritis, but hysteria was present for many years.

Dr. W. Sinkler spoke of the value of ophthalmoscopic examination in such cases.

Dr. Mitchell said it was very common to have hysterical symptoms in cases of tumors of the brain.

Dr. Lambert Ott said that while in the wards of the Jefferson Hospital, Dr. Eskridge was kind enough to show me this case. When I first saw her she appeared to me as a pale, anæmic, simple-minded, hysterical woman. After his examination, she asked him for permission to go home, and before he could reply she burst into a violent fit of crying, which was not appeased by a most favorable reply. After he had repeated some points of his examination, she again made the request, with the same emotion increased in intensity, and no amount of promising could subdue her until she had exhausted herself. The question of headache in cerebellar disease is of interest to me on account of a case I reported in the *Med. Times*, November 6, 1880, of abscess occupying the entire right side of the cerebellum, where there was absolutely no other symptom except a severe headache, which was confined to the right occipital region corresponding to the side of the lesion, and during the violent exacerbations, the pain became diffused, but the seat of intensity remained over the lesion. In Dr. Eskridge's case, the pain was not so much localized, but was more diffused, and mostly confined to the top and frontal region. In other reported cases where the tumor of the cerebellum was large, the pain in the head was more diffused, whereas small tumors and abscesses of the same region produced more or less localized headache.

The next paper read was entitled

Notes on the Idiot Skull and Brain.

By A. W. Wilmarth, M. D., Assistant Superintendent Pennsylvania Training School for Feeble-Minded Children.

While fully conscious that the value of statistics depends on their amplitude, and that the number of cases I have to present to-night is comparatively small, yet the literature on the pathology of idiocy is meagre, and even the few cases I shall endeavor to describe in this paper may be of interest to those who have made a special study of the nervous system and its diseases.

Asymmetry of the skull in idiots has received considerable attention. The characteristic forms accompanying microcephalic and hydrocephalic brains are too well known to require any mention here. Slight deformities, aside from evidence they may furnish of former violence, would hardly seem to be of much importance as affecting the soft and yielding brain beneath.

Asymmetry of the vault, with the exception which I will shortly describe, is not of frequent occurrence among our children.

Among the cases in our institution are a noticably large number who have behind and before the ear (commonly the right) a considerable depression. In a very few of these cases, a second depression exists in the opposite temporal region. Unfortunately it is difficult to obtain facts in relation to the birth of these children. In two cases where depressions exist near the right ear and left temple, a reliable history of a difficult forceps delivery has been obtained. Both of these children, who were among the more intelligent groups, were aphasic. We have been led to believe from these, and from other similar cases, that the violent localized pressure of the valuable obstetric forceps on the fœtal head, is not always so harmless as it is generally believed to be.

Hypertrophy of the skull has been found in only one case; the skull in some parts of the section being a full half inch thick.

Our attention has been frequently attracted to peculiarities about the interior of the base of the skull in congenital idiots and imbeciles.

These consist principally of projection of the bony prominences beyond their normal limits, particularly observable in the lesser wing of the sphenoid and the petrous portion of the temporal bone; less frequently stenosis of the foramen magnum is found. This was seen in three cases, two of which were epileptics.

Deformity of the christa galli is also common, it being more pyramidal in shape, and bent to the right or left. Even more frequently we find encroachment of the middle and posterior clinical processes on the pituitary fossa, in some cases nearly closing the upper portion of the fossa.

Localized thickening of the membranes with adhesion to the brain is freqently found. In two cases out of fifteen observed, this adhesion was general, and any attempt to separate them brought away portions of the cortex.

Sixteen brains from idiot and imbecile children were deprived of their membranes, where practicable, dissected, drained for one hour, and then carefully weighed.

The average weight was found to be thirty-six and a half ounces. In all but two cases the patient was over fifteen years of age. One brain taken from an idiot boy weighed fifty-one ounces. From its firm consistency we were led to suspect hypertrophy. One child of eleven years had a brain weighing only twenty-two and three-fourths

ounces. In another case, a girl of nine years, the brain weighed twenty-five and one-fourth ounces. Still another, a young man of twenty-two, had a brain weighing twenty-five and one-fourth ounces.

As a rule, in these cases, the weight has been directly proportional to the intelligence of the case to which the brain belonged.

The weight of the cerebellum varied from three and a half to six and a quarter ounces, with an average weight of four and three-quarter ounces. In two cases where the weight of this organ was three and a half and three and three-quarter ounces respectively, both cases were mutes and paralyzed.

According to Sharpy and Gray, the relative weight of the cerebellum and cerebrum is 1.8$\frac{4}{7}$ in the male, and 1.8$\frac{1}{7}$ in the female. In sixteen cases, of which thirteen were males, the proportional weight was found to be 1.7$\frac{1}{2}$, or counting only such cases as were certainly congenital (ten in number), the ratio was 1.7, making a marked contrast between the relative development of the cerebrum and cerebellum.

Clevenger, in an article on the relation of the position of the fissure of Rolando to intelligence (*Journal Nervous and Mental Diseases*, 1880), lays down this rule: If the superior arc of the hemisphere, along the great longitudinal fissure, be divided into ten equal parts, the distance from the tip of the frontal lobe to the superior extremity of the fissure of Rolando, would represent from six to six and a half of these parts.

In seventeen brains measured by me, these distances were as five and three-eighths to ten.

The frontal lobes are often more narrow and pointed, and show a simplicity of convolutive development that forms a decided contrast to the normal brain.

Deficient development in this portion of the cerebrum is most evident in the third frontal convolution, where a small operculum tends to leave the anterior convolutions of the Island of Reil exposed.

In six out of sixteen brains the island was not completely covered. In four cases the exposure was evident on both sides; in two cases on one side only. In four cases it was very slight, in two cases marked.

The case of C. M., an apathetic idiot and mute, presents points of considerable interest. No motor or sensory disturbance was apparent during life, except defective vision. The exact extent of this infirmity we were never able to ascertain during life, owing to his low grade of intellect.

While it was very evident that sight was not perfect, he could certainly see well enough to find his way around without difficulty, and to distinguish objects and persons.

After death the following portions of the cerebral cortex were found thin, soft, and wrinkled: the posterior horn of the lateral ventricle being much dilated, and the undeveloped portions of brain substance not over one-eighth to one-fourth of an inch in thickness.

On the left side were involved the posterior portions of the supra-marginal, the angular posterior portion of the superior parietal, and a considerable portion of the second and third temporal convolutions.

On the right side, the second and third occipital, the angular, the posterior part of the supra-marginal and third temporal convolutions.

The cuneus on either side is very small. In the usual situation of the angular gyrus no normal brain tissue existed; all other portions of the brain below the cortex, supposed to be connected with sight, appeared normal.

In eight out of eighteen brains the cerebrum failed to cover the cerebellum.

Two cases of defective corpus callosum have been found.

I copy the following notes from our post-mortem records:

"L. A., aged nine, mute; can neither walk nor speak; left arm and leg paralyzed; died in an epileptic convulson.

"The brain, on removal, showed a tendency to flatten out, the hemispheres separating from each other. On pulling them apart, no corpus callosum was found, its place being supplied by a fold of membrane passing from one hemisphere to the other, through which the fluid of the ventricles could be seen. No trace of a septum lucidum or a velum interpositum was found. The anterior pillars of the fornix, instead of joining, passed directly back to the hippocampal region. Anterior and posterior commissures normal. Instead of a middle commissures, the optic thalami were joined together for a space three-eighths of an inch in diameter.

"On making a tranverse section of the hemisphere, a projecting process, about three-eighths of an inch in length, was seen on either side, in the usual situation of the extremity of the corpus callosum. The grey matter of the gyrus fornicatus was continued along the upper surface of the process, over the end, growing thinner on the lower surface, and giving place to the epenchyma of the ventricle."

A block of sclerosis in the right central region explained the paralysis in the left side.

A smaller block existed in the right occipital lobe; while from the movements of the child, and his manner of turning his eyes, we were led to suspect left hemanopsia; but of this we have no certain assurance.

Another case was H. F——, aged eleven. A profound mute; unable to walk; of a very low grade of intelligence. Died of chronic meningitis. The corpus callosum in this case consisted of a narrow band, five-eighths of an inch in width, and not over one-twentieth of an inch in thickness. So slight was the connection, that in using very slight force to separate the hemisphere sufficiently to photograph the parts, it tore apart. Back of this portion the two parts, very thin and having a sharp edge, separated rapidly. The posterior portions were entirely absent. The septum lucidum was absent. Velum interpositum present, but incomplete. The commissures were all present, but very small. The pillars of the fornix were not connected with each other, and followed the same course as in the other brain.

No trace of a pineal gland was found. Development of the corpus callosum must have stopped at an early period of fœtal life.

The heart was small, weighing less than two ounces. The right auriculo-ventricular valve admitted the tip of the little finger only by using force.

The genital organs were peculiar. An enlarged clitoris, fully an inch in length. A vagina divided into two nearly equal parts by a longitudinal membranous partition, terminated by a small uterus, much flattened in its antero posterior diameter, and not over an inch in length. In the upper part of the uterus was a cavity which communicated by separate passages with the two parts of the vagina. Ovaries and fallopian tube normal.

Three cases, all of them confirmed epileptics, have been found with destructive lesions of the hemispheres.

1. A case of paralysis of the right arm and leg, complete in the arm, less so in the leg, with progressive aphasia, which had become nearly complete at the time of death. With the infirmity mentioned, a decided change in his disposition occurred, the boy becoming excessively irritable, and even violent at times. Two patches of sclerosis were found; one in the upper third of the ascending frontal convolution, the other at the junction of the middle and upper thirds of the same convolution. The aphasia was probably due to the lower mass of sclerosis, which extended quite deeply into the brain substance, implicating the fibre leading from Broca's convolution. There was no sensory disturbance in this case.

2. In a case dying of apoplexy, a small spot of white softening was found in the superior parietal convolution near the parietal occipital fissure. There was no symptom that indicated its presence during life except an occasional spasm.

3. A case where atrophy and hardening of the left hippocampus major was found. No accurate examination for symptoms was made during life. We are sure there was no paralysis. During the last months of her life here, with the frequent occurrence of violent spasms, her memory failed fast. Piano playing, of which she was very fond, was gradually given up, not because of inability to use her fingers, but because she could not remember her notes. The same was true of needlework, in which she had been quite expert. She apparently forgot how to do it. To the last she would button a girl's dress neatly and quickly, from which we infer there could have been no decided loss of tactile sensation.

It is in the arrangement of the convolutions that some of the most interesting features are met. In congenital imbeciles, and particularly in idiots, striking differences are found.

One type of brain, in this class of children, is very simple in its outward configuration. The convolutions are usually coarse, but little convoluted, and comparatively free from secondary folds. The fissures tend to assume a confluent type, and as we pass to lower grades of intellect, this tendency increases.

Another variety, found so far among the lowest grades of idiocy, might well be termed an "atypic" variety. The brain previously described as without a corpus callosum, is a marked example of this type. The short description I present can be readily followed by means of these photographs.

In the frontal lobe of the right hemisphere the first frontal convolution is quite regular. Below this, from the centre of the lobe, seven radiating fissures pass in different directions, cutting the tube into a number of radiating convolutions, entirely different from its usual appearance. The short fissure of Sylvius, about three inches in length, passes upward, turns sharply at nearly a right angle, and passes almost directly backward. Two parallel gyri curve around its posterior extremity. The arrangement of the convolutions of the temporal and parietal lobes are so exceedingly irregular and complex, that it is impossible to classify them. In the occipital lobe, on the contrary, the gyri are complete in number and regular in their arrangement.

In the left hemisphere the arrangement of the frontal convolutions is more regular, but the temporal and parietal lobes present the same complicated area of surface folding, bearing but little resemblance to the normal brain.

The tendency of the convolutions to arrange themselves in parallel curves around the posterior extremity of the fissure of Sylvius, is well shown in this brain of F. N., a boy of exceedingly low intellect. The frontal lobes in this brain are proportionately large, the convolutions straight, especially the third frontal, the fissure shallow. In the left temporal lobe they are nearly obliterated from pressure of fluid in the ventricles. The ascending frontal convolution on each side appears to be wanting. On the left side a large bridging convolution crosses the middle of the fissure of Rolando.

A few other points deserve notice. Confluence of fissure, I have already mentioned as a decided feature of idiot brains. Even where confluence is not complete, the tendency of the principal fissures to cut through separating convolutions is very evident; and should I include in the cases below those where confluence is *nearly* complete, the number would be considerably augmented. In these cases confluence is complete, and the examination comprises fifteen brains from children of all grades of imbecility.

The fissure of Sylvius passes into the fissure of Rolando, in one case on both sides, in another on one side only. In two other cases they are connected by deep secondary fissures.

The inter-parietalis has its origin in the fissure of Sylvius, in four cases on both sides, in five cases on one side only.

The calcarine fissure passes completely across the gyrus fornicatus; on both sides in two cases, on one side in four cases.

In one case the first occipital convolution sank nearly beneath the surface, the next occipital gyrus projecting over it, forming a partial operculum.

There also seems to be a strong tendency to form annectant gyri in the upper part of the parieto-occipital fissure. In no less than six hemispheres of the fifteen brains were these supplementary gyri found more or less complete.

In one case on both sides, in five cases on one side, we find the parieto-occipital fissure cutting through the first occipital convolution into the inter-parietal fissure. A tendency of the transverse occipital fissure to approach the parieto-occipital fissure is very apparent, though in no case do they coincide.

I will close these remarks without further comment. Why the folds of the cerebral cortex, from a lack of the stimulus of healthy growth, should assume the forms we have seen them possess,

sometimes reverting to forms resembling those found in other groups of the animal kingdom, again forming a tangled group bearing little resemblance to what we usually find on the brain surface, we can scarcely venture to attempt to say.

While in a few cases lack of development or coarse lesion, which can be recognized by the unaided eye, may readily account for the loss or congenital want of mental power, in more instances grave impairment of brain-power exists without commensurate lesion, and in the microscope, if in anything, we shall find the means of unravelling the mystery.

The paper was discussed by Drs. Charles K. Mills and A. J. Parker.

The following cases were shown to the Society by Dr. S. Weir Mitchell:

Atrophy of Upper Half of Body with Well-Developed Lower Half.

Case 1 was that of a girl eleven years old in which her limbs were well developed, while the upper part of the body was atrophied.

Two Cases of Spinal Disease with Unusual Symptoms.

Case 2. Patrick M., æt. 50, Irish, married; no specific history; no previous illness; fell wheeling barrow three years since; no injury to spine. Soon after noticed burning pain in left foot. Two months after, fell again without warning while in house. Soon recovered and went home, and to work twenty-four hours after. Worked with difficulty six months; stopped, and has grown gradually worse ever since. Pain, heat, formication in legs. Occasional spasmodic rigidity in legs at night. No loss of sensation. Faradic reactions normal. Ankle clonus, patellar reflex exaggerated. Cremaster, abdominal, epigastric, and scapular reflexes present. Reflex action on percussion of deltoid, biceps or triceps tendons, or extensor tendons at wrist. The chin reflex, noticed by Dr. M. J. Lewis is present. Sensation in legs is peculiar. On the foot and ankle, and part way up the lower leg, a needle prick was felt as a prick, and perfectly distinguished from a touch. The surface was analgesic, but pain was produced on deeper pricking. From the middle of the leg up, the sensation improved gradually to the level of the eighth dorsal vertebra; above this, it was natural. The prick, or a pinch, or sometimes even a touch, produces spasmodic jerk of muscles; if touch on leg, of soleus; on thigh, of quadriceps; great exaggeration of all reflexes. Ankle-clonus. Tetany if blow on patella is repeated; "spinal epilepsy" (Brown-Séquard); epigastric and abdominal reflexes present. A weak faradic current applied to the nerves produced normal contractions in the supplied muscles; contraction, by direct application, like normal. Thickening of skin and areolar tissue of leg, somewhat like Mrs. S., but here appears to be atrophy of muscles.

Case 3. Mary M., 18, U. S., mill-hand, family history good, except that her father died of consumption. The patient has never had any serious illness. About two years since she discovered on the left side a spot which she does not describe as painful, but says that she had a "curious feeling" in it. Soon after, at a party, she wished to dance, but found herself so lame in the left leg as to make dancing impossible. The toe dragged when walking, and the feebleness of the leg increased slowly, spreading from below upward. At the end of a year the right leg began to weaken, first in the thigh, and then gradually downward, until she was unable to move about or stand without assistance. This complete loss of power has now lasted about eight months. She is, she says, weak in the back, and has sometimes numbness of the inner side of the forearms and hands. She can assign no cause for the trouble.

Dr. Morris J. Lewis made the following remarks on

The Chin Reflex. A New Clinical Observation.

In the winter of 1882 while examining at the Infirmary for Nervous Diseases connected with the Orthopœdic Hospital, Phila., a case of section of the inferior dental nerve, I discovered a new reflex. For report of case see *Phila. Med. News*, March 11, 1882. This consists of a sudden elevation of the lower jaw immediately following a blow upon the lower teeth, or chin, and is most easily produced by striking the parts mentioned in a downward direction with a rubber plexor. The mouth of the patient is of necessity open, and the muscles should be relaxed.

Since then I have observed this symptom in two cases of spastic paralysis, one case of congestion of the spinal cord, one of cerebral tumor, probably specific, one of hemiplegia, one of unilateral tumor of doubtful origin, and occasionally in perfectly healthy individuals.

In some of these the reflex was plainly due to a contraction of the temporal muscles, while in others the masseters seemed to be mainly instrumental in causing it. The clinical significance of this symptom is not as yet clear, but I wish to place it upon record, and to direct attention to it, hoping later to be able to report more fully.

Gowers, in his "Diseases of the Spinal Cord," mentions that irritation of the skin in the intrascapular region gives us the highest reflex available; the *chin reflex* is therefore of considerable interest, as being, as far as I am aware, *the highest deep reflex yet discovered.*

Lewis Brinton, M. D., *Recorder.*

Vaseline in Pastry.

From a foreign exchange we learn that at a recent meeting of the Council of Hygiene and of Salubrity of the Department of the Seine (France), M. Alfred Riche read a report concerning the employment of vaseline in pastry as a substitute for grease or butter. The reporter stated, in the name of the commission charged to investigate the matter, that however advantageous the use of vaseline may be to vendors of pastry, inasmuch as it prevents the latter from becoming rancid, it is nevertheless, used for that purpose, injurious to health. Moreover, as vaseline does not possess the nutritive qualities of fat or butter, and as the action of the derivatives of petroleum on the economy, particularly on the digestive apparatus, is as yet but little understood, the Council have recommended the interdiction of the employment of vaseline for alimentary purposes.

Editorial Department.

Periscope.

Cases of Prurigo (Hebra's).

Dr. C. Handfield Jones thus writes in the *London Med. Times*, February 28, 1885:

Case 1. J. L., æt. 17, errand boy, admitted Nov. 8, 1884. Father died of consumption, mother living. Is a stout looking lad. No history of scrofula or syphilis. Does not remember having any serious illness, suffers from cough occasionally, and from rheumatic pains in shoulders and loins. Has occasionally some asthmatoid paroxysms, which are apt to come on when his skin disease is better. His present illness commenced 3½ years ago, when he was working in a bakery. Was treated at St. Mary's as out-patient, and afterwards was admitted, and placed under the care of Dr. Cheadle. At date of admission he had been suffering for eighteen months. He remained in the hospital thirty-five weeks, and left much relieved. He then got employment at a dyer's, and after two months the eruption came out again. At present both his legs are covered extensively with eruption, which affects chiefly the extensor surface of thighs, legs, and arms. There is also a large patch on the front of his upper chest. His skin is very tough and hard, and in the affected parts more or less rough and red and thickened. Some discharge occurs, which stiffens linen. The affected parts itch severely, especially when he is warm in bed at night. One of his nails is marked by furrows. No albumen in urine. Some cough. Some pityriasis of scalp. Is otherwise healthy. Ordered a full warm bath with patent size every night, and a tobacco lotion, gr. 20 ad. ℥x., to be applied in the day to the itching parts. Improvement had commenced by November 13th, but was interrupted by my ordering ungt. staphisagriæ in place of lot. tabaci, which coincided with a worse state of eruption and increase of itching. 18th.—Eruption looks much better, ungt. zinci is very agreeable, more soothing than the lotion. Bismuth ointment is not more effectual than zinc. November 27th.—No itching, sleeps well. He was discharged on December 12th very much relieved. His temperature in seven observations was normal. Phosphori gr. $\frac{1}{33}$, *ter die* ē cibis, was administered internally during his whole stay in hospital.

Case 2. B. Ph., æt. 15, milk-boy, admitted April 4, 1884. Father dead, was subject to same eruption as patient, so is his eldest brother. The other members of the family are quite healthy. He has had the malady more or less since birth, but it did not become very bad until two years ago. He attended as out-patient for nine months, was then better, and ceased attending. Got worse subsequently, and was advised to become in-patient. Has had no other illness during his life. Generally after much exertion, and getting hot thereby, he has difficulty in breathing and hurried respiration. This lasts from one to twenty-four hours at different times; he does not feel ill, but occasionally diarrhœa comes on with or soon after the attacks, and lasts a day or two. Eruption discharges at night when he is warm in bed, or is warm from other causes. Appetite good. He looks bright and fairly healthy. Says he is very well. Pulse 84, irregular. Skin dry and harsh, is thickened generally, and presents brown scaly patches on feet, legs, front of thighs, back, upper third of abdomen, forearms, front and back, front of right arm. Temperature 100.2°. Heart and lungs fairly sound. rhythm of sounds at apex not regular. Urine s. g. 1025, no deposit, no albumen. Much itching. Ordered gelatine warm baths o.n. Lotio glycerini, ol. morrh., ℥j. *ter die.*

On 10th, ungt. staphisagriæ was ordered, which he used four days without any good effect. Ant. pot. tart. gr. $\frac{1}{20}$ + tr. calumbæ, ℥v., + aq. ℥j. *ter die.*

21st. Improved, eruption disappearing in all parts, itching ceased. Antimony caused nausea at first, but not now.

24th. Much improved, eruption almost gone from all parts except outer edges of legs and arms.

May 3. The eruption which lingers on the legs and arms is more the result of scratching than true eruption. Bowels act regularly every two or three days, but has colicky pain after defecation. Phosphorus, gr. $\frac{1}{33}$ *bis die* commenced on May 1.

5th. Had an attack of shortness of breath today, after getting up in morning.

8th. Omitr. antimonium. Went out June 4 much relieved. He was readmitted September 8, with recurrence of skin disease. Musical sounds were heard in both lungs, in fronts and backs. Heart's sounds normal. Ordered warm gelatine bath o. n., and phosphorus gr. $\frac{1}{33}$ *bis die post cibos.*

September 11. Skin at back of calf and in popliteal space of both legs looks angry, but causes no pain, except smarting on entering the bath. No trouble in breathing. Pulse 96, regular.

October 9. Hardly any itching, no eruption.

October 13. Cough rather troublesome in night. Urine neutral; no albumen.

15. Legs same, arms not so well. Had asthma this morning for about an hour.

23d. Arms and legs better. Bowels constipated; headache.

October 30. Discharged, cured (?). Temperature normal.

Remarks.—The first of these two patients does not appear to have inherited his prurigo; it made its appearance between the thirteenth and fourteenth year of life. In the second, the disorder, or the tendency to it, was evidently transmitted from the father to two of his sons, and its external manifestation dated almost from birth in B. Ph. Hebra refuses to allow that prurigo is an hereditary affection, but this view is too extreme. In both cases the disorder was inveterate, being relieved for a time by treatment, but soon recurring again in full force. In both the patient was subject to attacks of quasi-asthma, which were more prone to appear when the cutaneous disease was brought into abeyance. In both the general

health, apart from the irritation of the skin and bronchial membrane, was good. Only in case 2 some similar derangement of the intestinal mucous surface was occasionally associated with the pulmonary. The eruption itself was rather of indeterminate character, and had it not been for the severe itching, the obstinate tendency to recur, and the associated asthma, one might have hesitated to pronounce positively on the diagnosis. Hebra remarks (p. 259, Syd. Soc.) that "there are many cases of prurigo which may at first sight be taken rather for some other affection—for ichthyosis, eczema, impetigo, or ecthyma, from the peculiar and characteristic features of the disease being obscured by other more obvious symptoms." He prefers to be guided not by what may be seen here and there on the skin, but from the *general impression* which the eye should always be trained to receive. The diffused roughness, harshness, discoloration, and thickening of the skin were, with the other symptoms, decisive in my cases. As to the pathology, we may agree with Hebra in rejecting the popular notion of "acidities and acrimonies" as the cause of prurigo, but it is by no means certain that his own view is any better founded. He regards a pruriginous papule as a local lesion, originating primarily in the skin, which gives rise to itching by the pressure of its fluid contents—a minute drop of blastema—on the nerves of the cutaneous papillæ. He affirms that it is "only at those places where papules appear that itching is felt," that without papules there is no itching, at least in true prurigo, though he admits that "there certainly are cases in which itching is first felt, and consequent scratching produces all the visible appearances on the skin." But these are different pathemata, and he draws a marked and exact distinction between pruritus and prurigo properly so-called. Hebra's hypothesis seems to me opposed by the non-occurrence of itching in common pressure bullæ—as from rowing or walking—as also in herpes labialis, varicella, and varioloid. Dr. Tilbury Fox maintained strongly the opposite view, that the basis of prurigo was a paresis, a disorder of the nervous element of the skin, that it was in fact a neurosis. He writes, "Since the intense itching is often the sole, as it is the primary and important thing present, other phenomena observed in the skin are secondary." The same view as to the essential importance of primary nervous system derangement had been previously maintained by Cazenave and others. If Hebra's statement as to the necessary dependence of itching in prurigo on the pre-existence of papules was established, it would be an important point; but, as we have seen, T. Fox denies it positively, while Hilton Fagge remarks that it is almost impossible to feel certain on this point, since we scarcely ever see prurigo cases before the skin has been scratched. Mr. Hutchinson, with his vast experience, actually questions whether Hebra's prurigo is met with in English practice, and is half-inclined to deny that there is any malady deserving the name of prurigo, and to affirm that "we ought rather to think of pruriginous irritation as a symptom which may attend a large number of different skin diseases." It seems to demand explanation on Hebra's view, why, since the scabies eruption produces itching in remote parts as well as *in loco*, the prurigo eruption acts so differently? The essence of Hebra's view seems to be that in prurigo the local lesion is everything, and the general condition goes for nothing. Hence, he consistently affirms that "external remedies alone are of any use in prurigo." But the existence of winter prurigo, and of summer prurigo, as well as of prurigo uninfluenced by weather or climate (Hutchinson), goes far to negative the above dogma. The papular eruption must be identical, one would think, in all; but there is something else to be considered, probably the nervous system, on the peculiar state of which the result very largely depends. Until I met with the two cases recorded in this paper, Hebra's prurigo was scarcely known to me. They seem fair instances of it; but have the interesting feature, which Hebra does not notice, of pulmonary (or intestinal) disorders alternating to some extent with the cutaneous. This seems to me absolute proof that the morbid action was not merely local, but to some extent at any rate general. In the *Lancet* of July 6, 1867, I have mentioned a case where severe pruriginous itching suddenly ceased, and was replaced by melancholia. Metastases of this kind, where one nervous disorder is succeeded by another at a remote part, can scarcely be regarded otherwise than as neuroses. As such I certainly reckon my two cases. All instances of pruriginous disorder may not be alike; to some, Hebra's view may be fairly applicable; but in the great majority the nervous system seems profoundly implicated, and to recreate deterioriated nerve-force seems to me a rational object of treatment.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——An excellent and lucid chart, showing the condition of the urine in disease, has been published by Dr. C. F. Taylor, of this city, editor of *The Medical World*. The author is Dr. Louis Lewis, and the present is the second and revised edition. It gives the qualitative tests, specific gravity, reactions, and therapeutic notes. The chart is very neatly framed, and is a handsome addition to every office.

——Dr. L. Duncan Bulkley, in a reprint before us, advocates in strong terms the pursuit of specialties in the medical profession. His arguments are convincing; indeed, we may say they are so convincing as to be unnecessary. He must be a very much fossilized member of the profession who nowadays would oppose a reasonable specialization of medical practice. Yet, like all good things, it may be carried to a hurtful extreme. For a young graduate to select a specialty, and work at it exclusively, before he is well grounded in general medicine, is a serious error.

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MIKULICZ'S NEW OSTEOPLASTIC OPERATION.

The new osteoplastic method of resection as invented by Mikulicz, consists in fitting after enucleation of the tarsus bone from the sole, the upper half of the tibio-tarsal joint to the anterior Chopart's connection. Dr. N. W. Sklifossowsky, in the *Rev. de Chirurg.*, 1885, 2, ascribes the invention to his countryman, Wladimiroff, for the latter recommended the operation (1872) before the Russian Society of Natural Scientists, having successfully performed it on a case that he presented at the meeting. S. besides adds one more case to those already reported. It concerned a patient æt. 30, in whom the operation was not performed on account of caries, as has usually happened, but for epithelioma of the ankle, which was directly referred to an external injury, received by the patient eleven years previous. At the time of the writing of the report, the patient had already been trying for several days to walk about, and the success, at least as far as the method and the operation itself were concerned, was a complete one.

This new operation seems to have many advantages. First, less tissue and bone substance is removed ; then the mobility and usefulness of the ankle are far better retained; and lastly, the healing is easier and more rapidly established. It appears to be applicable in all cases where Chopart's operation has generally been performed. It is one of those operations whose perfect success can be assured only under thorough aseptic precautions.

THE EFFECT OF LIGHTNING UPON HUMAN BEINGS.

Dr. Heusner had the opportunity to study the effect of lightning upon a large number of human beings. He has recorded his experience in the *Wiener Med. Blatter*, 1884, Nov. 4.

In the neighborhood of Bremen twenty persons had been struck by lightning; four of them were killed outright, and the remaining sixteen were injured more or less. Most of those who recovered, had later no recollection whatever of what had happened to them; some remembered the exact

moment, and the sensations which they had experienced at the time. Those of the latter class all spoke of a feeling as if some heavy object had struck their head or the nape of their neck. The skin of all showed irregular burns, from which red lines branched out over the extremities and the trunk, in a manner as the teeth pass off a comb. Of decided interest is the observation already previously made and confirmed by Heusner, that even grave wounds of the skull need be but of relatively small importance to the brain, notwithstanding vomiting in the beginning and utter want of recollection regarding the occurrence; and notwithstanding a great debility, which remained for many weeks later, a boy completely recovered who had received a burn in the middle of the forehead, which penetrated through the whole cutis to the bone.

Those struck by lightning evinced a cadaverous hue: the features were distorted, and the extremities showed a surprising coldness. Very interesting also was the morbid condition found in a woman; she had about twenty burns, from the size of a pea to that of a ten-cent piece, on the soles of her feet, besides two larger and deeper ones near the head; the former spots evidently resulting from the lightning making its exit through them from the body. The woman was found dead. Whenever there seems to be evidence of the current having passed through, instead of perhaps around the body, the effect of the lightning always appears to be a fatal one.

EFFECT OF PHOSPHORUS ON THE FŒTUS.

Dr. J. M. Minra (*Virchow's Arch.*, xcvi., 1,) has recently made a series of interesting experiments for the purpose of determining whether in cases of acute intoxication by phosphorus of pregnant animals, the poison is also communicated to the fœtus. Four such observations were made on pregnant guinea-pigs, they receiving in two doses, after two days' fasting, one drachm to ninety minims of a five per cent. phosphor oil. Three to four days later the animals experimented upon were killed by an injection of morphia into the external jugular vein. In all the cases, fatty degeneration of the liver cells, of the muscle of the heart, of the epithelium of the kidneys, and of the gastric follicles, were observed on the animals, as well as on the fœtus they contained. In one fœtus many ecchymotic spots were found on the mucous membrane of the stomach. Icterus was not met with in any of the cases, probably in consequence of the comparatively small doses. In the animals specially kept for control-experiments, not a single one of the morbid alterations met with was to be observed.

Basing his opinion upon the results thus obtained, M. thinks that the administration of phosphorus in the case of pregnant women should be accompanied by the greatest care, as the co-affection of the fœtus is to be feared in every case, and this may be followed by the gravest consequences.

NOTES AND COMMENT.

Recovery from Fracture of the Skull.

Recovery from fracture of the skull, when the question of the accuracy of the diagnosis is not open to question, is sufficiently unusual to warrant all possible publicity for such cases. Therefore, we note that in the *London Med. Times*, April 11, 1885, Mr. T. G. Parrott reports the case of a young man aged twenty-two, who while at work decorating a ceiling, fell a distance of about nine feet, striking his head on the boarded floor. He was conscious for a short time after the accident, and was brought in a carriage as soon as possible to the hospital. His state on admission was as follows: He was carried in, insensible and pallid, with cold extremities, blood pouring out profusely from the right ear, of a bright red color, and projected with a well-marked pulsation. He moved his arms and legs, and evinced pain on pressure over the right parietal region. After he had been put to bed, he vomited up a large quantity of food and bile, mixed with a little blood. The pupils were dilated, but sensible to light; the eyes closed, but he opened them once or twice afterwards; some twitching of the nose. When spoken to in a loud voice, he seemed to hear, and answered with a groan. Pulse, 56; temperature, normal. He passed water later. The ear was plugged, and a pad and bandage applied, but these were soon saturated with blood, and had to

be changed several times. An ice-bag was applied to the head, and hot-water bottles to the feet. In the evening a turpentine enema was given, and a mustard-plaster was applied to the epigastrium.

The accident occurred November 11, 1884. On December 3, 1884, a fluctuating swelling behind the right ear was opened, and a large amount of pus escaped; slight discharge of blood from ear afterwards. Drainage-tube placed in wound. Six grains of quinine given every day.

On January 16, 1885, he was discharged, comparatively well, complaining only of some deafness of right ear.

There seems little doubt but that this was a case of fracture of the middle fossa of the base of the skull, extending from side to side. The symptoms leading to this conclusion were the profuse hemorrhage from the ear, followed by equally profuse suppuration, the paralysis of the third nerve on the right side, and the prolonged convalescence. The good result seems due to the fact that the patient was young, steady, and of good constitution.

Antimonial Wine in Diseases of the Skin.

This drug, which has fallen into disuse in this connection, was at one time quite extensively used, as we learn from an admirable paper by Dr. John Kent Spender, in the *Practitioner* for March, 1885. He says that a therapeutic chord which had long slumbered was made vocal again when Mr. Malcolm Morris read a paper at the Liverpool Congress of the British Medical Association on the "Utility of the Tartrate of Antimony in the Treatment of Certain Diseases of the Skin." He asks: "What is there to prevent tartrate of antimony from taking its proper place in the therapeutics of the skin? Is there any *a priori* objection? All authorities agree on the influence of that salt over acute bronchitic and pneumonic diseases. The physiological anatomy of skin and of mucous membrane is so far identical, that their pathology must be to a large extent identical too. In acute dermatitis and in acute bronchorrhœa there is the same proliferation of epithelium, the same wasteful flux of serous or sero-purulent fluid. Now if tartrate of antimony controls the one, surely it may control the other; the outside of a man is as delicate as the inside, in its obedience to its same laws of growth and of decay; and we should see the analogy without difficulty if the characteristic features of the diseases of the skin were not veiled under an artificial terminology, based upon fanciful resemblances to other things. Words and phrases, drawn from confused metaphors, should not allure us from tracing the hidden agreements of apparently different diseases, for the right use of many remedies may depend upon this. Tartrate of antimony has no partiality for any special texture; its eclectic power makes it helpful in stopping the evolution of the inflammatory process anywhere —equally in solid glands and on free surfaces. And as inflammation may occur wherever there are nerves and wherever there are blood-vessels, so the remedial force of tartrate of antimony is co-extensive with every tissue of the human body."

The doses must be small, and comparatively frequently administered.

Dr. S. relates a most obstinate case of psoriasis that yielded to antimonial wine after resisting all other remedies. Since skin diseases are oftentimes so obstinate, it is well that we should bear this observation in mind.

Aneurism of Splenic Artery.

To the Pathological Society of London (March 17), Dr. Samuel West showed a specimen from a man aged 56, who died from hæmatemesis. He had suffered from a severe attack on another occasion fourteen years previously. About Christmas 1884, and subsequently, he had been drinking freely, and suffered from diarrhœa. On January 21st, he passed a large quantity of blood by the bowel, and on the following day, when in the hospital, a tarry motion. He was a spare, muscular man, very blanched. The only diseased condition detected, on physical examination, was an enlargement of the liver. On January 28th, he suddenly vomited a pint of bright blood, and died in a short time. At the necropsy, the stomach contained two pints of bright blood. There was an ulcer on the lesser curvature; its base and edges were thickened. A small aneurism projected through the base of this ulcer, and from this the hemorrhage had proceeded. The mucous membrane was otherwise healthy, except that at two points there appeared to be scars of two superficial ulcers. The liver and kidneys were cirrhotic. Aneurism in the floor of a gastric ulcer appeared to be a rare condition, as only two other cases had been recorded in the *Transactions* of the Society. A point of some importance was the fact that great pain preceded the hemorrhage.

Dr. T. Barlow had examined a case last autumn which very closely corresponded to the case described by Dr. West. A large ulcer, three inches in diameter, was found in the stomach. The

pancreas formed part of the floor of this ulcer, and in the middle was an aneurism of the splenic artery, about the size of a pea; this had ruptured, and given rise to fatal hemorrhage.

Dr. Norman Moore thought enlargement or aneurismal bulging of the pancreatico-duodenalis artery, in cases of ulcer of the stomach where fatal hemorrhage had occurred, was not uncommon.

News and Miscellany.

American Medical Association.

At the 36th annual session of the American Medical Association, held in New Orleans, April 28, 29, 30, and May 1, the following papers were read:

The "President's Address," by Dr. Henry Fraser Campbell, of Georgia, in the course of which, speaking of the position of expert medical witnesses in court, he said: "That the position of the medical witness, and, to a certain extent, all professional and expert testimony before the courts of law, is anomalous, and often one of false relation to justice, as well as to the ends of humanity, and sometimes mortifying to the pride and self-respect of the deponent, few will deny; for but few have been so fortunate as to escape the annoying experience of being at one time or another the subject of such arraignments—happy has he been who has had only his intelligence and his integrity assailed, and happy, too, that no malpractice suit has deprived him of his liberty and living as well.

"My object is more to bring the position of the medical man summarily before you, as he stands in his several relations to the tribunals of law, rather than to describe minutely that with which we are already familiar, or to present elaborate arguments to establish the existence of evils of which we are already convinced. I will, therefore, briefly refer to only a few of the more prominent *rôles* in the forensic drama (too often a farce), in which he is often forced to play his part, and in which, though he may be repeatedly *encored*, he seldom elicits applause.

"At the present time, and in the eyes of most communities, the plane to which the medical deponent and expert has at last gravitated is but little above that of the ordinary, if not the partisan, witness. The light of scientific truth he sheds is even sometimes suspected as coming with bent and refracted rays through the distorting lens of self-interest and a paid opinion. From circumstances which condition his testimony, he seldom now occupies in this country the honorable position of *amicus curiæ* or friend and instructor of the court on scientific questions, upon which may rest an important judicial decision. He is almost invariably presented as the medical witness, or the medical expert, in behalf of one side or other of the case upon trial. He is cited to appear as a witness in its behalf more frequently, not because he possesses superior knowledge of the scientific truths about which his testimony is to be conversant; not because his medical opinion *per se* is entitled to more confidence than that of another, and still less frequently—we could hope, never—because he has been suborned; but he is often selected because, with a certain standing in the community, he is known to hold opinions, or, on the representation of the attorney, can be made to adopt opinions, favorable to the side on which he is to depose. Quite often his only claim to the character of a medical expert depends upon a summons thus conditioned. The reliance upon medical testimony and, in time, confidence and respect for the medical profession, must necessarily be depreciated by such exponents of them both.

"Professor Washburn, of Cambridge, quotes the following words of Lord Campbell in addressing the House of Lords in regard to scientific testimony in general: 'What are called scientific witnesses come with such a bias on their minds to support the cause in which they are embarked, that hardly any weight should be given to their evidence.'

"Without further general remark, I will here refer more or less briefly to the three principal positions or attitudes in which, as professional men, we most frequently stand related to the tribunals of law, viz.: first, as the medical witness; secondly, as the medical expert; and, thirdly, as a defendant in suits of malpractice.

"In each one of these relations it could readily be shown that the medical man labors under disadvantages which do not, in the same degree, embarrass either the testimony or the defence of any other class of citizens. This is not the occasion to enumerate them, much less to put them under discussion. They have been long and fully recognized by the members of our own profession, while some of the most profound and astute minds of both the bench and the bar have diligently studied and yet have failed to remove them. For the deponent, whether medical witness or expert—and here we can consider them together before the jury—these difficuties often arise from the unlimited number and diversity of facts, and sometimes of principles, necessarily used as predicates for medical induction, and from the unavoidable complexity apparently connected with the reasoning by which conclusions, often perfectly legitimate, are arrived at. Thinking in technicalities, he is yet called upon to express himself in the plainest vernacular, often before an ignorant jury, or at least in terms simplified for the ready comprehension of non-professional minds.

"This last requirement is often violated; not always from a pedantic inclination, but from embarrassment under the novelty of the situation, and from the little familiarity with and thought given to questions in forensic medicine, and to the object of medical testimony as being instruction to the jury. He may be like Moses, 'learned in all the wisdom of the Egyptians,' but if he deposes only in the Egyptian dialect, only an Egyptian jury can be enlightened by him.

"Not alone in our own country, but at a still earlier date, and apparently with even a more sedulous care, have the forensic wisdom and ingenuity of foreign judicatories been exhausted in various attempts to elevate the position and to render more

available to the ends of justice and equity the scientific witness and expert. Prussia, recognizing the evils of ignorant and unworthy experts in the medical profession, as well as in all others, from which scientific testimony has to be elicited in grave questions pending before the courts, has a toxicologist appointed by the goverement, and a permanent commission of experts in matters connected with medical science. In Scotland, medical witnesses are said to deliver their examinations in writing, but are subjected to oral cross-examination before the court; in France, the judges decide who shall act as experts in certain cases, also what questions shall be submitted to them, the answer being returned to the jury in writing; 'and practically it is said to have the weight of conclusive evidence.'—*Washburn.* 'In England,' continues Professor Washburn, 'much speculation and various schemes have been suggested for obviating the objectionable features of expert testimony, but thus far without the adoption of any system.'

"It will be seen that all these efforts, both in the United States and in the several countries of Europe, comprehend all scientific experts, and among them the medical deponent. They are not made in behalf of the witness, either to elevate his position or, except incidentally, to recognize the high order of his testimony, but only to guard against his ofttime ignorance and unworthiness, and to make his testimony available to the courts. In most of the European courts mentioned, however, there is an incidental protection given to the scientific medical witness, from the assaults and indignities offered by the examiner and the advocate.

"In the United States, even, this incidental protection is rarely enjoyed by the medical profession. Often each side calls its medical expert, and his testimony, whether scientific or ignorant, impartial or partisan, is dealt with in open court by the advocates and examiners, at whatever cost to the witness, so that it can be made only to subserve the interest of one or the other side. Quite often the cause of justice is lost sight of, the significance of the deposition perverted by the artful methods of the examiners, and the casting of doubt on its credibility by the advocate. He is, as a witness and also as an expert, subject in his disposition to the arbitrary, and sometimes offensive, and often irrelevant interrogation of the interested attorney, whose duty it may become to misinterpret or to suppress the significance of his testimony, and not infrequently to wrest it to the ends of that which, though the common practice of the law, are not the ends of equity and justice. In this way can the profoundly scientific and strictly-conscientious medical witness or expert, on account of the inherent difficulties of his deposition, as before stated, more than any other class of witnesses, be made to appear to the average jury and to all ordinary minds present in the light of a crafty charlatan—the tool of some hidden interest guiding and directing his testimony.

"Albeit, the situation is one of grave and deplorable falsity and humiliation, I may here, for its aptness, perhaps not improperly indulge in what might otherwise be considered a facetious illustration of this perversion and suppression of medical testimony to the nullifying of justice, and, 'for the nonce,' to the degradation of the medical witness and expert in the eyes of the jury and 'all spectators.' The incident is accurate in all essential particulars.

"The case was one in which the wife had been accused of causing the death of her husband by poison—all attendant circumstances and testimony in the case confirmed the suspicion; and, lastly, arsenic had been found in abundant quantity, by careful and laborious analysis, in the stomach and tissues of the dead man. The medical expert was one of the most conscientious and distinguished members of our profession, and a founder of this Association; and, withal, 'as mild a mannered gentleman as ever'—had his throat cut, or his testimony scuttled, before an American jury. The advocate for the defense was one whose name, if mentioned, would at once be recognized by all present as one of the leaders of the American bar, and a statesman of the land; and withal, one of the most powerful criminal lawyers that ever swayed the minds of a jury in behalf of the accused.

"*Scene.*—The crowded court-room many counties distant from the homes of both the medical witness and the advocate.

"Lawyer: 'Are you a physician?'

"Medical Witness: 'Yes.'

"L.: 'You are a professor in —— College?'

"M. W.: 'Yes; Medical College of ——.'

"L.: 'What Chair do you hold?'

"M. W.: 'Chemistry and Pharmacy.'

"L.: 'Are you in the habit of analyzing for arsenic?'

"M. W.: 'Yes.'

"L.: 'Do you often find it in cases when called upon for your testimony in court?'

"M. W.: 'I have repeatedly found arsenic or other poison in the stomach of such persons.'

"L. (*with emphasis*): 'Have you ever failed to find the poison?'

"M. W.: 'It has so happened that in the cases I have examined, the existence of poison had been circumstantially made out, and my analysis established the fact.'

"L.: 'You have always detected the arsenic, Doctor, in such cases?'

"M. W.: 'Yes.'

"L.: "May it please your honor, we are satisfied with the witness.'

"Medical witness retires.

"This was the cross-examination, and this lawyer for the defendant had the closing argument. No further questions were asked the witness. He had shown to the satisfaction of all intelligent persons present that he had, in a most scientific, conscientious, and expert method, supplied the last and convicting link in the unbroken chain of evidence required to establish the guilt of the accused.

"This was the attention the lawyer gave to this medical expert testimony:

"'Now, may it please the court, as to this medical—what they call "expert testimony." Consider the facts: He is a doctor; he is a professor in a college; his chair is chemistry and pharmacy.

"'Gentlemen of the jury, he is in the habit of testing for poison—he is the arsenic hunter and arsenic finder for his college, and, you see, he is

a good one; he *always* finds the arsenic. He is obliged to find it—it would ruin his college and ruin him if he did not find it; but, gentlemen of the jury, I appeal to you as intelligent and scientific men, you are not going to allow my innocent, unfortunate client to suffer to support the credit of that college!'

"The murderess was acquitted by the jury almost without leaving their seats, as any one who knew the giant of an advocate she had might well have expected.

"This was *perversio veri*, as well as *suppressio veri*—not by the witness, but by the lawyer. The medical deponent was, in his own way, almost as great a giant as himself, but he was a doctor in the court, and there he was a giant *bound*."

A report eulogistic of the life and services of the late Professor Gross was then presented by Dr. T. G. Richardson, of New Orleans.

Dr. J. S. Billings, U. S. A., in behalf of Dr. Austin Flint, of New York, who was unavoidably absent, presented a report from the Committee to Secure a Congressional Appropriation for a Fireproof Building for the Army Medical Museum and Library.

He stated that through the efforts of the committee and the individual aid of the members of the Association, Congress, after having had the subject under consideration for four years, at its last session granted the requisite appropriation for the erection of the building, and the work will be commenced at once. The building will be located on the Smithsonian grounds, near the National Museum, and will be a plain but substantial structure. On behalf of the Surgeon-General, he extended thanks to the committee and to the Association for their confidence in the present management of the Library and Museum, as shown by their continued and earnest endeavor to secure this appropriation.

Dr. Billings also, in behalf of Dr. Flint, chairman of the committee appointed at the last meeting to present at Copenhagen an invitation, "on behalf of the Medical Profession of the United States," to the International Medical Congress to meet in Washington, in 1887, with power, if accepted, to make all necessary arrangements therefor, reported that the invitation had been tendered and accepted; that meetings of the committee had been held in Copenhagen in August, in New York in October, and in Washington in November, and the result of their preliminary work was stated. He further stated that the committee expected to be prepared to present a full programme for the Congress at the next meeting of the Association.

Dr. W. D. Didama, of Syracuse, delivered the "Address in Medicine," in the course of which, speaking of the "*vis medicatrix*," he said:

"Now, while we are familiar with this reparative power, we may not be so attentive to another conservative force, which is especially important: The Resisting Power. From the *vis medicatrix* this power differs essentially. One is a restorative force—a tendency to come back to the normal condition after departure from it. The other is the conservative force, which *prevents* departure. A steel spring yields readily to external force, but its elasticity—after the disturbing cause is removed—enables it to resume its original condition. This is the *vis medicatrix*. Granite rock is not easily affected by external violence. Its power of resistance is great. When the force brought to bear upon it is strong enough to cause it to yield, it goes to pieces, having no recuperative power. There may be great toughness, combined with great resisting power. The iron-clad vessel when struck by ponderous ball or steel bolt, may be perforated, but it is not hopelessly shattered.

"This resisting power is akin to what is called inertia in physics—the tendency of a body in motion to keep going; of a body at rest to remain quiet forever. Light bodies with little substance are easily set in motion, and easily deflected from their course, or arrested in it. A feather can be wafted or stopped by the lightest breath. A cannon ball, an avalanche, are turned aside by no obstacle; they move onward to their destination.

"Every human being has more or less of this resisting power. It may be feeble, and yet so united to a recuperative force, that the individual possessor manages to get along fairly well. Any trifling mishap or exposure may prostrate him, as a reed may be shaken in a moderate wind; but his elasticity, like that of the reed, brings him up promptly when the storm ceases. He has his frequent ups and downs; we all know many such cases; he is delicate of constitution; he may be like an estimable old lady of my acquaintance, at the point of death at odd spells for thirty years; and yet he lives on by virtue of the *vis medicatrix*, of which he seems to be composed, till all his acquaintances have passed off the stage of action.

"On the other hand, this resisting power may be like that of the granite. Its owner may violate all sanitary laws, may laugh to scorn all counsel about what he should eat or drink, or wherewithal he should be clothed. He may expose himself unprotected to cold and wet. He may go without sleep and food. He may tax stomach and brain and muscle to the utmost. And yet he may remain undisturbed. We know such men—men who guzzle poor whiskey every day, and live to be a hundred years old. We know men of granite constitutions, who prowl around late at night, when they should be snugly in bed; who gormandize, who exercise vigorously all the vices; and yet who remain a standing refutation—as superficial observers think—of all rules for preserving good health. But when some overwhelming calamity comes, they are stricken down forever; their first illness is their final one; they crumble to atoms.

"In every community are those whose resisting power is so feeble from inheritance, or so thoroughly impaired by excesses, that they are but walking dead men—apples of Sodom perhaps—fair to look upon, but ashes or putrefaction at the core. They yield to influences which are trivial in their nature, and go into the hands of the undertaker before their neighbors had even heard of their illness. These are children of old, or debauched, or scrofulous parents, whose resisting power is so nearly *nil*, that their aspirations to stand with the angels receive early gratification, in spite of all that love and skill can do to keep them away from their heavenly home. We name the messenger who summons them cholera infantum, or tuberculous brain disease, or white

swelling; and as parents, while we wonder at the mystery, we bow submissively to Him who gives and then takes again so soon. But as physicians, we are not surprised that diseased and mushroom cells should hasten to early destruction.

"No man liveth for himself alone. The good constitution, the strong resisting power of the temperate and upright man, is not only a sure personal defence against disease and a guarantee of longevity; it is transmitted to his offspring down to many generations. The dissolute man, broken down with diseases acquired while sowing his wild oats, suffers not alone. If he did, we might view the transaction with mitigated sorrow. He had his coarse enjoyment, and he can afford to reap corruption. But the evil that he does lives after him in the blighted and wretched lives of his innocent children and his children's children.

"A priceless inheritance is a strong resisting, combined with a vigorous recuperative power. He who has it and preserves it, and fortifies it, living a clean and active life, eschewing bodily and mental excesses, and clinging to the Divine promises, may bid defiance to disease in its multifarious forms. He need not be afraid for the pestilence that walketh in darkness, nor for the destruction that wasteth at noonday. Free from fear—the greatest depressant—he shall walk unscathed through all perils. A thousand may fall at his side, and ten thousand at his right hand, but disaster shall not come nigh him. And even when the onslaught of disease cannot be wholly warded off, the wounds inflicted shall have speedy healing."

The address in "Obstetrics" was delivered by Dr. R. Stansbury Sutton, of Pittsburgh. The subject of the address was "Ovariotomy." The first part of it was devoted to the history of the conditions surrounding McDowell's first case. The deviations from McDowell's method of performing the operation were then carefully traced up to the present day, and the conclusion reached was, that the operation, as left by McDowell, was almost as complete as at the present time. Two essential improvements were the introduction of the cautery by Baker Brown, and the cutting off of the long ends of the ligature by Nathan R. Smith. Dr. Sutton then showed that from McDowell's operation nearly all the intra-abdominal operations in surgery had sprung, and noted carefully the lectures and papers delivered on the subject during the last twelve months. He insisted, as in all former papers, upon greater care in the surroundings of all intra-abdominal operations, and, in further proof of his position, pointed to the admirable results obtained by John Homans, of Boston, and Robert Battey, of Rome, Ga., both of whom used the carbolic spray. He stated that for himself he did not use the spray, but looked upon cleanliness and Listerism as linked so closely together that they might be said to be inseparable, for Listerism is the gospel of cleanliness. Mr. Lawson Tait had said to him: "I have sold all my right, title, and interest in Listerism, with my tea-kettle, to Battey." At the close of his address, Dr. Sutton referred to Dr. J. Marion Sims as one whose name was synonymous with the surgery of women, beloved of his own countrymen, and honored by the entire surgical world.

This was followed by a paper by Dr. W. C. Van Bibber, of Maryland, entitled "Construction of a Healthy City in Florida," in which he urged that change of air sometimes permanently arrests pulmonary disease in its first stage, and that the most favorable climate for yielding such a result was one where the temperature ranged from between 70° and 80° F., provided it is good, healthy air. Such a climate can be obtained on the Gulf Coast of the Peninsula of Florida; and if medical, social, and scientific interests would unite at once in the erection of a health city in the locality, it could be made so as to have no equal elsewhere.

Dr. N. S. Davis, on behalf of the Committee on Meteorological Conditions, and ther relations to the prevalence of diseases, reported that the Committee had endeavored to secure full reports from the twelve principal cities of the Union through the official bureaus. It had made a special study of ozone production and its value, and also of its tests. Of these, Schönbein's paper is the best, but it reacts to other agents. Thallium was found to be very sensitive. Observations were interrupted in some cities by changes of residence of observers. Physicians were requested faithfully to record the beginning of all epidemics. He said it was difficult to secure such service, as many promise and do not perform; yet he thought that accumulating material will permit the Committee in after years to report conclusions of value. The report was accepted.

Dr. Davis also presented a report from the Committee on the Collective Investigation of Disease, which was appointed to act in co-operation with the Committee of the British Medical Association. He stated that at the International Medical Congress held at Copenhagen, an International Committee had been appointed, with members from Denmark, Sweden, Russia, Germany, France, and England, and North and South America. A sub-committee had been appointed to consider subjects for consideration, and to tabulate a programme to be distributed throughout the world. The Committee had decided that few questions should be asked, that they should be simple in character, and that they should relate, 1st, to geographical distribution; 2d, to prevalence of diseases in certain localities; 3d, to other etiological factors not so connected.

The report asked that the Committee should be continued, with instructions to urge upon other societies to take up the work. Several States, among which are Illinois and Pennsylvania, have already done so.

Dr. Davis, from the Special Committee to report Explanatory Resolutions of Certain Sections of the Code of Ethics, stated that the Committee had given the subject due consideration, and respectfully submitted the following brief report in the form of preamble and resolutions:

WHEREAS, Persistent misrepresentations have been, and still are being made, concerning the provisions of the Code of Ethics of the American Medical Association, which many, even in the ranks of the profession, are led to believe—as, for instance, that the Code excludes persons from professional recognition simply because of difference of opinion on doctrines—therefore,

Resolved, First, that Clause I., Article IV., of the National Code of Medical Ethics, is not to be interpreted as excluding from professional fellowship, on the ground of difference in doctrine or belief, those who in other respects are entitled to be members of the regular medical profession. Neither is there any other article or clause in the said Code of Ethics that interferes with the most perfect liberty of individual opinion and practice.

Second. That it constitutes voluntary disconnection or withdrawal from the medical profession proper, to assume a title indicating to the public an exclusive or a sectarian system of practice, or to belong to an association or party antagonistic to the general medical profession.

Third. That there is no provision in the National Code of Medical Ethics in any wise inconsistent with the broadest dictates of humanity, and that the article of the Code which relates to consultations cannot be correctly interpreted as interdicting under any circumstances the rendering of professional services whenever there is pressing or immediate need of them; on the contrary, to meet promptly the emergencies of disease, of accident, and to give a helping hand without unnecessary delay, is a duty fully enjoined on every member of the profession, both by the letter and the spirit of the entire Code. But no such emergencies or circumstances can make it necessary or proper to enter into formal professional consultations with those who voluntarily have disconnected themselves from the regular medical profession in the manner indicated by the preceding resolution.

Adopted.

Dr. Duncan Eve, of Tennessee, then delivered the "Address in Surgery." The first part of the address contained a rhetorical reference to surgery before anatomy was understood, and to what it had accomplished from the days of the ancients down to the present time. He reviewed many points in the history of surgery from the most ancient to the present time. He dwelt upon the improvement in the treatment of fractures of the skull, cleft palate, and vesical calculi, and in the application of orthopœdic apparatus. The address closed with an eloquent eulogy upon the late Dr. Gross.

The committee appointed to consider the advisability of erecting a monument to Benjamin Rush in the city of Washington, recommended that such monument be erected by dollar subscriptions, and provided for the appointment of a committee to carry out the object of the resolution. The committee was appointed as follows: Drs. A. L. Gihon, Washington, D. C.; Henry Smith, Philadelphia; R. A. Kinloch, Charleston; S. C. Gordon, Maine; J. H. Murphy, Tennessee; M. H. Henry, New York.

The Nominating Committee then presented the following list of

OFFICERS FOR THE ENSUING YEAR:

President—William Brodie, M. D., of Michigan.

Vice-Presidents—Samuel Logan, M. D., of Louisiana; A. Y. P. Garnett, M. D., of the District of Columbia; Charles Alexander, M. D., of Wisconsin; and W. F. Peck, M. D., of Iowa.

Section of Medicine—J. T. Whittaker, M. D., of Ohio, Chairman; B. L. Coleman, M. D., of Kentucky, Secretary.

Section of Obstretrics—Seth C. Gordon, M. D., of Maine, Chairman; J. F. Y. Paine, M. D., of Texas, Secretary.

Section of Surgery—N. Senn, M. D., of Wisconsin, Chairman; H. H. Mudd, M. D., of St. Louis, Secretary.

Section of Ophthalmology—Eugene Smith, M. D., of Michigan, Chairman; J. F. Fulton, M. D., of Minnesota, Secretary.

Section of Diseases of Children—W. D. Haggard, M. D., of Tennessee, Chairman; W. B. Lawrence, M. D., of Arkansas, Secretary.

Section of State Medicine—J. H. Rauch, M. D., of Illinois, Chairman; F. E. Daniel, M. D., of Texas, Secretary.

Section of Aural and Dental Surgery—J. S. Marshall, M. D., of Illinois, Chairman; A. C. Baldwin, M. D., of Illinois, Secretary.

Committee on Necrology—J. M. Toner, M. D., of the District of Columbia, Chairman.

Judicial Council—R. A. Kinloch, M. D., of South Carolina; D. D. Saunders, M. D., of Tennessee; T. G. Richardson, M. D., of Louisiana; G. A. Ketchum, M. D., of Alabama; George Baird, M. D., of West Virginia; J. M. Toner, M. D., of the District of Columbia; A. M. Pollock, M. D., of Pennsylvania.

Time and place of next meeting—St. Louis, on the first Tuesday in May, 1886.

In the *Section on Practice of Medicine*, presided over by Dr. Didama, of Syracuse, the following papers were read: "On Carbuncle," by Dr. Bulkley, of New York, who objected to incision, because of the danger from pus being absorbed, which does not occur when the carbuncle is allowed to open naturally. He was opposed to poultices, and gave calcium sulphite in quarter-grain doses in gelatine-coated pills every two hours, magnesia sulphate in laxative doses three times a day, and tonic doses of sulphate of iron; and an application of solid extract of ergot, two drachms; oxide of zinc, one drachm; rose-water ointment, two ounces, upon lint, to the carbuncle, which reduces pain and cuts short the disease.

Dr. Hebbard, of Indianapolis, found that oleate of morphia, applied every two hours, cuts short carbuncle to a few days' duration. He did not incise.

Dr. Lynch, of Baltimore, indorsed Dr. Bulkley's plan, but applied dilute citrine ointment.

Dr. Shoemaker, of Philadelphia, did not incise carbuncle, unless there was a considerable quantity of pus. He indorsed Dr. Bulkley's treatment, and did not get good results from oleates.

Dr. Savage, of Tennessee, painted a ring of collodion around the carbuncle with good results.

"The Percuteur; its Uses in Diseases of the Nervous System," by Dr. A. F. Patte, of Boston.

"Hydatid Tumors," by Dr. N. Harvey Reed, of Mansfield, Ohio. "An Attempt at Radical Treatment of Tuberculosis," by Dr. Whittaker, of Cincinnati, who has, without favorable results, injected corrosive sublimate into the consolidated portion of the lung. "The Hypodermatic Injection of Oil," by Dr. John V. Shoemaker, of Philadelphia.

In the *Section on Surgery:* Dr. John B. Roberts, of Philadelphia, read a paper on "False Doctrines in the Treatment of Fractures," referring first to errors by the invariable use of the primary

bandage, and by the use of passive motion too late or too early. He said splints were often left on too long; there was more damage done by letting it alone than by exploring in fractures of the skull. He also referred to fractures of the nose, clavicle, humerus, and elbow-joint. The use of the interosseous pad in the forearm he maintained did not do what was claimed for it. He believed that, as a diagnostic point, measurement was not of as much value in the lower extremities as was generally supposed.

"The Treatment of Compound Fractures by Free Drainage and Wiring of Bones," by Dr. Virity, of Illinois. "Do we Find from Micro-Organisms in Enclosed Cavities a Hitherto Unsuspected Danger to Surgical Lesions?" by Dr. H. O. Marcy, of Massachusetts. "The Surgical Treatment of Cysts of the Pancreas," by Dr. Senn, of Milwaukee. "Two Ovariotomies on the Same Patient," by Dr. Ransohoff, of Cincinnati. "Giant Growth of the Lower Extremities." "Case of Necrosis of Tibia and Fibula of Ten Years' Duration; Operation and Recovery," by Dr. R. H. Jenkins, of Georgia. "Colo-Proctitis Treated by Hot-Water Douche and Stretching or Division of Sphincter Ani," by Dr. A. T. Garnett, of Washington. "A New Combined Trocar and Canula, and Aspirating Needle," by Dr. H. L. Getz, of Iowa. "Fibroma of the Scalp," by Dr. Owens.

In the *Section on Obstetrics:* "The Treatment of the Secundines in Abortion and Labor," by Dr. William H. Wather, of Louisiana, Ky. "Parametric Abscess," by Dr. W. W. Potter, of Buffalo. "Chronic Peri-Uterine Abscess; its Treatment by Laparotomy," by Dr. C. Fenger, of Chicago. "How Soon After Exposure to Sepsis may the Accoucheur Resume Practice?" by Dr. George French, of Minneapolis. "Abdominal Tumor," by Dr. J. A. T. Payne, of Galveston, Texas. "The Multiple Speculum Uteri and an Improved Dressing Forceps," by Dr. Munn, of Savannah. "The Improved Technique in Gynecological Operations, Minor and Major," by Dr. J. Engelmann, of St. Louis. "Speculi," by Dr. Henry O. Marcy, of Boston. "The Role of Bacteria," by Dr. Henry O. Marcy. "Vaginal Hysterectomy for Cancer," by Dr. A. Reeves Jackson, of Chicago. "Emmet's Operation—When Shall it and When Shall it not be Performed?" by Dr. E. Zink, of Cincinnati. "Reasons for and Results of Some Cases of Tait's Operation;" by Dr. Gordon, of Maine. "Intra-Peritoneal Adhesions in Relation to Tait's or Battey's Operation," by Dr. B. G. Heard, of San Antonio, Texas. "Notes on Surgical Gynecology in the Berlin Clinics," by Dr. Horatio Bigelow, of Washington. "The Ring of Bandl," by Dr. W. A. Jaggard, of Chicago.

(*To be continued.*)

Illinois State Board of Health.

At the regular quarterly meeting of the Illinois State Board of Health, held in Chicago, April 16 and 17, in connection with the efforts made to secure information from the national authorities concerning the status of cholera abroad, attention was called in the report of the Secretary to the cable dispatches received by the newspapers during the meeting announcing that the French, Italian, and Portuguese governments had ordered a quarantine of detention against Spanish vessels; and immediately following this came information of the appearance of the disease at Jaen, in the province of that name in the south of Spain, and at Santiago de Compostela, in the extreme north-eastern province of Cornua—the same dispatch saying that the panic in Spain over the spread of cholera is increasing as reports continue to arrive, showing that new points are being constantly attacked; that the government is taking energetic measures to isolate infected towns; and that a circular of warning has been sent by telegraph to the authorities of all provinces, cautioning them against the admission of persons or goods from twelve specified towns, all of which are officially stated to be more or less infected.

Simultaneously with this latter information the first official statement was made public by the Secretary of the State, who announced, on the 18th of April, the receipt of a dispatch from the United States consul-general at Madrid, saying "that he is informed by the director-general of health that there is no cholera in Spain, and that the cases recently reported in the province of Valencia are not cholera." The Spanish government has instructed its ambassadors to protest against quarantine restrictions, and a dispatch of the 19th inst., from Barcelona, also asserts that the disease is not Asiatic cholera, but cholera morbus or cholerine, due to local causes; the outbreak at Alcira, near Valencia, for example, being caused, it is claimed, by the failure of the regular water-supply, in consequence of which "the people have been drinking from a canal which was tainted by paper mills that use suspicious rags."

In view of these contradictory statements, and in the absence of full and authentic information from the national health authorities, sanitarians are justified in regarding, for precautionary purposes, the disease now so widely spread through the littoral provinces of Spain, as true Asiatic cholera, and in apprehending present danger of its introduction into this country through commercial intercourse with the Spanish possessions in the West Indies—Cuba, Porto Rico, etc.—and less directly with those in South America.

Attention is also called to the fact that the country is threatened with an influx, by emigration from Italy, of a people reduced to the verge of beggary and starvation by last year's cholera epidemic and its results. The low rates of passage will tempt to violation of the law against overcrowding, with all the suffering and unsanitary conditions which will thence result. The poverty of the people and their modes and habits of life will add to the evil; and increased burdens and responsibilities will be thrown upon the authorities of every port at which these immigrants land, as well as upon the communities in which they may settle. These considerations may make it necessary to begin the work of sanitary supervision of travel and quarantine along the State boundary lines earlier than would otherwise be necessary. Already the first instalment of the Italian immigration has arrived in Chicago.

The Board adopted the following preamble and resolutions concerning these matters:

CONCERNING INFORMATION OF FOREIGN EPIDEMIC DISEASES.

WHEREAS, Prompt, full and trustworthy information of the existence of epidemic diseases, such as Asiatic cholera, yellow fever and small-pox, in the foreign ports in commercial relations with this country, is a matter of the first importance to the success of efforts for preventing their introduction or limiting their spread; and

WHEREAS, It is understood that, under the authority conferred upon the President by Sec. 1752 of the Revised Statutes of the United States, consular officers and other foreign agents of the General Government are required to furnish such information: Therefore, be it

Resolved, That the Secretary of this Board be, and he hereby is, instructed to respectfully request of the honorable the Secretary of State that he cause to be transmitted to the office of this Board, at Springfield, so much of such information as may be useful in guiding action for the protection of the people of this Commonwealth against Asiatic cholera, yellow fever and small-pox.

On motion of Dr. Clark it was also

Resolved, That the STATE BOARD OF HEALTH of the State of Illinois respectfully but earnestly requests the President of the United States to authorize the National Board of Health to use so much of the contingent epidemic fund, appropriated by the last Congress, as may be necessary for preparing and enforcing an adequate system of preventive measures against the introduction and spread of foreign pestilential diseases, in coöperation with, and in aid of, State and local health organizations and with especial reference to Asiastic cholera.

Resolved, That the Secretary be authorized to transmit a copy of this resolution to the President.

STATE SANITARY SURVEY.

The first distribution of the blank inspection returns and accompanying instructions, embracing an aggregate of about 270,000 houses, was completed during the last week of the quarter. This distribution began with Alexander county, and progressed northward to the tier of counties along the Wisconsin line, which was reached in ample time to prepare for work as soon as the weather would permit. Before the middle of the State was reached, responses began to be received from localities in the southern counties, and by the close of the quarter 143 towns had been heard from. General publicity has been given to this effort by the press of the State, to secure which special circulars were addressed to the editors of 775 different publications.

A blank form for a tabular statement of these inspections has been prepared and printed, and is now ready for distribution. These will be furnished in duplicate sets, one to be returned to the office of the Board. They will show, at a glance, the actual sanitary condition of any given house and premises at the date of inspection; and, in the event of Asiatic cholera, or other epidemic contagious disease, making its appearance in a locality, they cannot fail to be of great practical value, not alone to the authorities of such locality, but also to the Board, indicating, without loss of time, the direction and manner in which its coöperation, advice, or authority, may be best employed.

Circular-letters have been addressed to the managers of all railroad companies operating in this State, urging immediate attention to the condition of the water-supply and of privies and water-closets at stations, shops, round-houses, and other places along their respective roads. Satisfactory replies have been received from nearly every company addressed, and some of the most important have already practically completed the required work.

County Boards and officers in charge of public institutions—almshouses, jails, asylums, etc.—have also been requested to secure a thorough sanitary policing of such places, and specific instructions on the most important points have been furnished.

Copies of the blanks, forms, etc., prepared for this general work have been furnished, on request, to the health department of Chicago; and an excellent form of inspection return, modified to meet the city conditions, has been prepared by the Commissioner of Health, Dr. DeWolf, for an inspection of some 70,000 houses. It is proposed to complete the inspection of 50,000 of these, and to secure the correction of the defects thus disclosed by the 1st of June.

One of the encouraging indications of the interest taken in this effort to prepare the State against an epidemic, is found in the large number of letters from private individuals asking advice, making suggestions, or expressing approval.

SANITARY CONDITION OF CHICAGO.

During the Friday morning session, Dr. O. C. DeWolf, Health Commissioner of Chicago, was present by invitation to speak upon the sanitary condition of the city, the work in progress and projected, and the preparations for cholera. From the standpoint of the sanitarian, Dr. DeWolf said, Chicago was a clean city, although its muddy streets made it seem dirty. Its low death-rate and the failure of small-pox to spread, notwithstanding thirty-five introductions of the contagion since last June, showed it to be clean in a sanitary sense; and the work now in progress and projected would, he believed, make it clean in appearance as well as in fact. Referring to the house-to-house inspection in the State at large, he said that the health department was also inspecting at the present time, about a thousand houses a week, in the worst quarters of the city; in a short time this would be increased, so that by the middle of June he hoped to have all that really required supervision thoroughly inspected and put in good condition. Some 9,000 tenement houses, which are usually a serious sanitary evil in all large cities, are under constant supervision, and he believed them to be as unobjectionable as it was practicable to make such buildings. If cholera should come, the preparations were already completed to promptly take charge of the first cases, to furnish medical attendance and nurses, to depopulate an infected house or locality, and to carry out whatever measures were necessary to prevent any spread.

The thanks of the Board were tendered Dr. DeWolf by the President for his very interesting and reassuring statement.

At the afternoon session, Mr. O. C. Guthrie, of Chicago, presented, by invitation, a brief outline of his plans for the sewerage and drainage of Chicago and its suburbs. Their important features embrace a study of the hydraulics of the Desplaines river, with reference to the effect of high water upon the cleansing of the Chicago river through the canal (by counteracting the action of the pumps), upon the integrity of the canal itself, and upon the safety of Chicago and Joliet from inundation.

DISINFECTION AND DISINFECTANTS.

The Secretary asked leave to submit a copy of

the Preliminary Report on Disinfection and Disinfectants made by the Committee on that subject appointed by the American Public Health Association, stating that, as Secretary of the Sanitary Council of the Mississippi Valley, and chairman of its special committee on General Sanitation, he had, in accordance with a resolution of the Council, addressed a letter, March 14th, to Surgeon Geo. M. Sternberg, U. S. A., chairman of the Committee on Disinfectants, requesting to be furnished with "a plain, practical paper on disinfection and disinfectants for popular use and distribution." Surgeon Sternberg, under date of April 14th, in a letter accompanying this copy, writes: "At a special meeting of the Committee on Disinfectants, called for the purpose, the paper submitted was carefully considered, and adopted unanimously, as expressing the views of this committee with reference to the best methods of disinfection known to us."

As this paper was intended for popular use and distribution, the Secretary remarked that he knew of no better way of securing that end than by publishing it in the report of the proceedings of the Board.

Dr. Ludlam moved that the copy of the Preliminary Report be received and published as suggested. Carried. It was subsequently ordered that the Secretary prepare a special edition of the paper, embracing only the practical instructions, for the use of local boards of health and health officers throughout the State.

State Medical Society of Georgia.

At the thirty-sixth annual meeting of this Society, held in Savannah, April 15, 16, and 17, the following papers were read:

"The Extent, Causes, and Prevention of Premature Death," by Dr. Eugene Foster, of Augusta, who claimed that the inherent potential longevity of man was from eighty to one hundred years, and that every human being had an inborn right to this period of life.

In seeking causes of premature death, he cited the fact that of the 1,146 diseases—general, local, etc. —which affect mankind, 27 caused fully 75 per cent. of the total mortality in 1870, and he contended that every one of these diseases is wholly preventable by application of definite and well-known hygienic measures.

He contended that there are mainly four essentials to procurement of health and longevity:

1. Purity of atmosphere and water.
2. Wholesale food in quantity and quality.
3. The inheritance of a healthful constitution.
4. Freedom from contagious and infectious diseases.

Man, in his individual efforts, has but little power over either of these essentials of life, with the exception of food. The only power which can secure the other three to the individual is the State. Minute and elaborate presentations of the filthiness of all cities, and the need of thorough sewerage and drainage, were made, and contained food for reflection.

The importance of, and the right to, inheritance of a healthful constitution, were fully presented, and the growing evil of marriage among persons diseased with consumption, scrofula, syphilis, epilepsy, chorea, insanity, and alcoholism, was severely condemned.

Upon questions of freedom from contagious and infectious diseases, the speaker pointed out the enormous mortality from these diseases, and criticised man's stupidity in permitting cases of contagious and infectious diseases to scatter abroad the seeds of their infection, when he is all-powerful to prevent the evil. He cited the fact that five preventable diseases—*i. e.*, small-pox, measles, scarlet fever, whooping-cough, diphtheria—kill 50,000 Americans every year, and yet the authorities, National and State, are indifferent to these causes of death, and are only fearful of cholera and yellow fever. He showed that the mortality from these latter two diseases was insignificant in comparison to that from other preventable diseases over which man has absolute control, and yet does nothing to prevent. He urged education of the public in sanitation as the remedy which it was the duty of the profession to promote.

"The Importance of Good Nursing and the Training of Nurses," by Dr. Howard J. Williams, of Macon. "The Best Nutriment for the Bony System," by Dr. R. J. Nunn, of Savannah. "A New System of Treating Diphtheria," by Dr. R. J. Nunn. "A Case of Double Uterus, with Fœtus in Each," by Dr. E. W. Lane. "Glaucoma following the Excessive Use of Atropia," by Dr. J. M. Hull, of Augusta. "Trachomatous Growths in the Larynx in Children," by Dr. A. W. Calhoun, of Atlanta.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President—R. J. Nunn, M. D., of Savannah.
Vice-Presidents—L. B. Alexander, M. D., of Forsyth; and T. F. Walker, M. D., of Cochran.
Secretary—James D. Cray, M. D., of Atlanta.
Treasurer—E. C. Goodrich, M. D., of Augusta.
Orator—C. W. Hickman, M. D., of Augusta.

Augusta was selected as the next *place of meeting.*

University of Pennsylvania.

The 111th annual commencement of the department of medicine of the University of Pennsylvania was held at the Academy of Music, May 1st, when degrees were conferred by Provost Pepper, upon 107 graduates in medicine and forty-nine graduates in dentistry. There was a large attendance, and in front of the stage was brilliant with floral decorations and bouquets for the graduates.

Dr. James Tyson, secretary of the Faculty, announced the following prizes as having been awarded to graduates in the department of medicine: A prize of $100, offered by a friend of the University for a sufficiently meritorious thesis, to Meier L. Jelovitz, for his thesis on "Bubonic Plague."

Alumni prize of $50, instituted by the Society of the Alumni of the Medical Department, to Frank S. Sutter, of California, for his thesis on the "Post Mortem Absorption of Arsenic."

The theses of the following received awards of distinguished merit: William C. Lott, of New Jersey; Thomas S. Kirkbride, Morton, Pa.; Charles S. Potts, Philadelphia.

Honorable mention was made of the following: Fred. A. Packard and J. B. Shober, Pennsylvania; G. B. McClellan, Pennsylvania; Fred. M. Strouse, St. Paul, Minn.; Howard S. Stretler, Philadelphia; William K. Cochran, Philadelphia; W. C. Goodell, Philadelphia, and Albert E. Geissel, Philadelphia.

The Morbid Anatomy prize of a Zentmayer's histological microscope was awarded to Francis E. E. Emory, of the Argentine Republic, for his thesis on "Parenchymatous Nephritis," with honorable mention of the thesis of Thomas Hubbard, of Ohio, and William V. Nichols, of New Jersey.

The Henry U. Beale prize of $50 for the highest general average attained on examination, was awarded to Frederick A. Packard, of Pennsylvania.

The Demonstrator's prizes, by the demonstrator of anatomy, Dr. J. William White, were awarded as follows: First, for proficiency in bandaging and operating, a copy of "Agnew's Surgery," to Edward G. Rhoads; second, a case of pocket instruments, to Frederick A. Packard.

The Anatomical prizes of $50 by Dr. John B. Deaser, for the best record of anomalies found in the anatomical room, was awarded to Thomas D. King, of Ohio.

Of two special prizes, offered by Dr. Spencer Morris, for marked proficiency in differential diagnosis and hygiene, the award was made by a special competitive examination, the first prize of $50 being awarded to Frederick A. Packard, and the second, of $20, to Thomas D. Kane.

The valedictory address was delivered by Dr. D. Hayes Agnew, Professor of Surgery and Clinical Surgery, and after the prizes had been presented the exercises closed with the benediction by Rev. Mr. MacIntosh.

Preliminary Report on Disinfection and Disinfectants, made by the Committee on Disinfectants of the American Public Health Association.

The following is the report referred to in the proceedings of the Illinois State Board of Health noticed in this issue:

"The object of *disinfection* is to prevent the extension of infectious diseases by destroying the specific infectious material which gives rise to them. This is accomplished by the use of *disinfectants*.

"There can be no partial disinfection of such material; either its infecting power is destroyed, or it is not. In the latter case there is a failure to disinfect. Nor can there be any disinfection in the absence of infectious material.

"It has been proved for several kinds of infectious material that its specific infecting power is due to the presence of living micro-organisms, known in a general way as "disease germs;" and practical sanitation is now based upon the belief that the infecting agents in all kinds of infectious material are of this nature. Disinfection, therefore, consists essentially in the destruction of disease germs.

"Popularly, the term disinfection is used in a much broader sense. Any chemical agent which destroys or masks bad odors, or which arrests putrefactive decomposition, is spoken of as a disinfectant. And in the absence of any infectious disease it is common to speak of disinfecting a foul cess-pool, or bad-smelling stable, or privy vault.

"This popular use of the term has led to much misapprehension, and the agents which have been found to destroy bad odors—*deodorizers*—or to arrest putrefactive decomposition—*antiseptics*—have been confidently recommended and extensively used for the destruction of disease germs in the excreta of patients with cholera, typhoid fever, etc.

"The injurious consequences which are likely to result from such misapprehension and misuse of the word disinfectant, will be appreciated when it is known that:

"*Recent researches have demonstrated that many of the agents which have been found useful as deodorizers, or as antiseptics, are entirely without value for the destruction of disease germs.*

"This is true, for example, as regards the sulphate of iron or copperas, a salt which has been extensively used with the idea that it is a valuable disinfectant. As a matter of fact, sulphate of iron in saturated solution does not destroy the vitality of disease germs, or the infecting power of material containing them. This salt is, nevertheless, a very valuable antiseptic, and its low price makes it one of the most available agents for the arrest of putrefactive decomposition in privy vaults, etc.

"*Antiseptic agents also exercise a restraining influence upon the development of disease germs, and their use during epidemics is to be recommended, when masses of organic material in the vicinity of human habitations cannot be completely destroyed, or removed, or disinfected.*

"While an antiseptic agent is not necessarily a disinfectant, all disinfectants are antiseptics; for putrefactive decomposition is due to the development of "germs" of the same class as that to which disease germs belong, and the agents which destroy the latter also destroy the bacteria of putrefaction, when brought in contact with them in sufficient quantity, or restrain their development when present in smaller amounts.

"*A large number of proprietary 'disinfectants,' so-called, which are in the market, are simply deodorizers or antiseptics, of greater or less value, and are entirely untrustworthy for disinfecting purposes.*

"Antiseptics are to be used at all times when it is impracticable to remove filth from the vicinity of human habitations, but they are a poor substitute for cleanliness.

"During the prevalence of epidemic diseases, such as yellow fever, typhoid fever, and cholera, it is better to use in privy vaults, cesspools, etc., those antiseptics which are also disinfectants—*i. e.*, germicides; and when the contents of such receptacles are known to be infected, this becomes imperative.

"Still more important is the destruction at our sea-port quarantine stations of infectious material which has its origin outside of the boundaries of the United States, and the destruction within our boundaries of infectious material given off from the persons of those attacked with any infectious disease, whether imported or of indigenous origin.

"*In the sick-room we have disease germs at an advantage, for we know where to find them as well as how to kill them.*

"Having this knowledge, not to apply it would be criminal negligence; for our efforts to restrict the extension of infectious diseases must depend largely upon the proper use of disinfectants in the sick-room.

"GENERAL DIRECTIONS.

"*Disinfection of Excreta, etc.*—The infectious character of the dejections of patients suffering from cholera and from typhoid fever is well established; and this is true of mild cases and of the earlier stages of these diseases as well as of severe and fatal cases. It is probable that epidemic dysentery, tuberculosis, and perhaps diphtheria, yellow fever, scarlet fever and typhus fever, may also be transmitted by means of the alvine discharges of the sick. It is, therefore, of the first importance that these should be disinfected. In cholera, diphtheria, yellow fever and scarlet fever, all vomited material should also be looked upon as infectious. And in tuberculosis, diphtheria, scarlet fever and infectious pneumonia, the sputa of the sick should be disinfected or destroyed by fire. It seems advisable also to treat the urine of patients sick with an infectious disease with one of the disinfecting solutions below recommended.

"*Chloride of lime*, or bleaching powder, is, perhaps, entitled to the first place for disinfecting excreta, on account of the rapidity of its action. The following standard solution is recommended:

"STANDARD SOLUTION No. 1.

"*Dissolve Chloride of Lime of the best quality* in soft water, in the proportion of four ounces to the gallon.*

"Use one pint of this solution for the disinfection of each discharge in cholera, typhoid fever, etc. Mix well and leave in vessel for at least ten minutes before throwing into privy-vault or water-closet. The same directions apply for the disinfection of vomited matters. Infected sputum should be discharged directly into a cup half full of the solution.

"STANDARD SOLUTION No. 2.

"*Dissolve Corrosive Sublimate and Permanganate of Potash in soft water, in the proportion of two drachms of each salt to the gallon.*

"This is to be used for the same purposes and in the same way as *Standard Solution No.* 1. It is equally effective, but it is necessary to leave it for a longer time in contact with the material to be disinfected—at least an hour. The only advantage which this solution has over chloride of lime solution consists in the fact that it is odorless, while the odor of chlorine in the sick-room is considered by some persons objectionable. The cost is about the same.† It must be remembered that this solution is highly poisonous. It is proper, also, to call attention to the fact that *it will injure lead pipes if passed through them in considerable quantities.*

"STANDARD SOLUTION No. 3.

"*To one part of Labarraque's Solution, (liquor sodæ chlorinatæ,) add five parts of soft water.*

"This solution is more expensive* than the solution of chloride of lime, and has no special advantages for the purposes mentioned. It may, however, be used in the same manner as recommended for *Standard Solution No.* 1.

"The following powder is also recommended for the disinfection of excreta in the sick room and of privy-vaults, etc.:

"DISINFECTING AND ANTISEPTIC POWDER.

"One pound of chloride of lime; one ounce of corrosive sublimate; nine pounds of plaster of Paris. Pulverize the corrosive sublimate and mix thoroughly with the plaster of Paris. Then add the chloride of lime and mix well. Pack in pasteboard boxes or in wooden casks. Keep dry.

"As an antiseptic and deodorizer, this powder is to be sprinkled upon the surface of excreta, etc.

"To disinfect excreta in the sick room, cover the entire surface with a thin layer of the powder —one-fourth inch in thickness—and if the material is not liquid, pour on sufficient water to cover it.

"*Disinfection of the Person.*—The surface of the body of a sick person, or of his attendants, when soiled with infectious discharges, should be at once cleansed with a suitable disinfecting agent. For this purpose *Standard Solution No.* 3 may be used.

"In diseases like small-pox and scarlet fever, in which the infectious agent is given off from the entire surface of the body, occasional ablutions with Labarraque's solution, diluted with twenty parts of water, will be more suitable than the stronger solution above recommended.

"In all infectious diseases the surface of the body of the dead should be thoroughly washed with one of the standard solutions above recommended, and then enveloped in a sheet saturated with the same.

"*Disinfection of Clothing.*—Boiling for half an hour will destroy the vitality of all known disease germs, and there is no better way of disinfecting clothing or bedding which can be washed than to put it through the ordinary operations of the laundry. No delay should occur, however, between the time of removing soiled clothing from the person or bed of the sick and its immersion in boiling water, or in one of the following solutions; and no article should be permitted to leave the infected room until so treated.

"STANDARD SOLUTION No. 4.

"*Dissolve corrosive sublimate in water† in the proportion of four ounces to the gallon, and add one drachm of permanganate of potash to each gallon to give color to the solution.*

*NOTE—Good chloride of lime should contain at least 25 per cent. of available chlorine. (See preliminary report of Committee on Disinfectants; the Med. News, Philadelphia, February 7, 1885, page 147.) It may be purchased by the quantity at five cents per pound. The cost of the standard solution recommended is therefore less than two cents a gallon. A clear solution may be obtained by filtration or by decantation, but the insoluble sediment does no harm, and this is an unnecessary refinement.

†Corrosive sublimate costs about seventy cents a pound, and permanganate of potash sixty-five cents a pound, by the single pound. This makes the cost of *Standard Solution No.* 2 a little more than two cents a gallon.

*We assume that the solution will contain at least 3 per cent. of available chlorine, which would give us 0.5 per cent. in the diluted solution. The cost per gallon of the undiluted solution should not be more than fifty cents by the quantity. This would make our standard solution cost between eight and nine cents a gallon.

†Mercuric chloride (corrosive sublimate) is soluble in cold water in the proportion of one part in sixteen. Solution is greatly facilitated by heat.

"One fluid ounce of this standard solution to the gallon of water, will make a suitable solution for the disinfection of clothing. The articles to be disinfected must be thoroughly soaked with the disinfecting solution, and left in it for at least two hours, after which they may be wrung out and sent to the wash.

"N. B. *Solutions of corrosive sublimate should not be placed in metal receptacles,* for the salt is decomposed and the mercury precipitated by contact with copper, lead or tin. A wooden tub or earthen crock is a suitable receptacle for such solutions.

"Clothing may also be disinfected by immersion for two hours in a solution made by diluting *Standard Solution No.* 1 with nine parts of water—one gallon in ten. This solution is preferable for general use, especially during the prevalence of epidemics, on account of the possibility of accidents from the poisonous nature of *Standard Solution No.* 4. When diluted as directed, this solution may, however, be used without danger from poisoning through the medium of clothing immersed in it, or by absorption through the hands in washing. A poisonous dose could scarcely be swallowed by mistake, owing to the metallic taste of the solution, and the considerable quantity which would be required to produce a fatal effect—at least half a pint.

"Clothing and bedding which cannot be washed may be disinfected by exposure to dry heat in a properly constructed disinfecting chamber for three or four hours. A temperature of 230° Fah. should be maintained during this time, and the clothing must be freely exposed—*i. e.*, not folded or arranged in piles or bundles, for the penetrating power of dry heat is very slight.

"The limitations with reference to the use of dry heat as a disinfectant are stated in a 'Preliminary Report of the Committee on Disinfectants,' published in *The Medical News*, Philadelphia, March 14, 1885.

"The temperature above mentioned will not destroy the *spores* of bacilli—*e. g.*, of the anthrax bacillus—but is effective for the destruction of all disease germs which do not form spores, and there is good reason to believe that this list includes small-pox, cholera, yellow fever, diphtheria, erysipelas, puerperal fever, and scarlet fever (?). Moist heat is far more effective, and it is demonstrated that ten minutes' exposure to steam, at a temperature of 230° Fah., will destroy all known disease germs, including the most refractory spores.

"In the absence of a suitable disinfecting chamber, it will be necessary to burn infected clothing and bedding, the value of which would be destroyed by immersion in boiling water, or in one if the disinfecting solutions recommended.

"*Disinfection of the Sick-room.*—In the sick-room no disinfectant can take the place of free ventilation and cleanliness. It is an axiom in sanitary science that *it is impracticable to disinfect an occupied apartment;* for the reason that disease germs are not destroyed by the presence in the atmosphere of any known disinfectant in respirable quantity. Bad odors may be neutralized, but this does not constitute disinfection in the sense in which the term is here used. These bad odors are, for the most part, an indication of want of cleanliness, or of proper ventilation; and it is better to turn contaminated air out of the window, or up the chimney, than to attempt to purify it by the use of volatile chemical agents, such as carbolic acid, chlorine, etc., which are all more or less offensive to the sick, and are useless so far as disinfection—properly so-called— is concerned.

"*When an apartment which has been occupied by a person sick with with an infectious disease is vacated, it should be disinfected.* But it is hardly worth while to attempt to disinfect the atmosphere of such an apartment, for this will escape through an open window and be replaced by fresh air from without, while preparations are being made to disinfect it. Moreover, experience shows that the infecting power of such an atmosphere is quickly lost by dilution, or by the destruction of floating disease germs through contact with oxygen, and that even small-pox and scarlet fever are not transmitted to any great distance through the atmosphere; while cholera, typhoid fever, and yellow fever, are rarely, if ever, contracted by contact with the sick, or by respiring the atmosphere of the apartments occupied by them.

"The object of disinfection in the sick-room is, mainly, the destruction of infectious material attached to surfaces, or deposited as dust upon window-ledges, in crevices, etc. If the room has been properly cleansed and ventilated while still occupied by the sick person, and especially if it was stripped of carpets and unnecessary furniture at the outset of his attack, the difficulties of disinfection will be greatly reduced.

"All surfaces should be thoroughly washed with a solution of corrosive sublimate of the strength of one part in 1,000 parts of water, which may be conveniently made by adding four ounces of *Standard Solution No.* 4 to the gallon, or one pint to four gallons of water. The walls and ceiling, if plastered, should be whitewashed with a lime wash containing the same proportion of corrosive sublimate, or they may be brushed over with the aqueous solution. Especial care must be taken to wash away all dust from window-ledges and other places where it may have settled, and to thoroughly cleanse crevices and out-of-the-way places. After this application of the disinfecting solution, and an interval of twenty-four hours or longer for free ventilation, the floor and wood-work should be well scrubbed with soap and hot water, and this should be followed by a second more prolonged exposure to fresh air, admitted through open doors and windows.

"Many sanitary authorities consider it necessary to insist upon fumigation with sulphurous acid gas—produced by combustion of sulphur—for the disinfection the sick-room. As an additional precaution this is to be recommended, especially for rooms which have been occupied by patients with small-pox, scarlet fever, diphtheria, typhus fever, and yellow fever. It should precede the washing of surfaces and free ventilation above recommended. But fumigation with sulphurous acid gas alone, as commonly practiced, cannot be relied upon for the disinfection of the sick-room and its contents, including bedding, furniture, infected clothing, etc., as is popularly believed. And a misplaced confidence in this mode of disinfection

is likely to lead to a neglect of the more important measures which have been recommended. In the absence of moisture the disinfecting power of sulphurous acid gas is very limited, and under no circumstances can it be relied upon for the destruction of spores.* But exposure to this agent in sufficient quantity, and for a considerable time especially, and in the presence of moisture, is destructive of disease germs, in the absence of spores. It is essential, however, that the germs to be destroyed shall be very freely exposed to the disinfecting agent, which has but slight penetrating power.

"*To secure any results of value, it will be necessary to close the apartment to be disinfected as completely as possible by stopping all apertures through which the gas might escape, and to burn not less than three pounds of sulphur for each thousand cubic feet of air-space in the room.*† To secure complete combustion of the sulphur it should be placed, in powder or in small fragments, in a shallow iron pan, which should be set upon a couple of bricks in a tub partly filled with water, to guard against fire. The sulphur should be thoroughly moistened with alcohol before igniting it.

"*Disinfection of Privy-vaults, Cess-pools, etc.*—When the excreta—not previovsly disinfected—of patients with cholera or typhoid fever, have been thrown into a privy-vault, this is infected, and disinfection should be resorted to as soon as the fact is discovered, or whenever there is reasonable suspicion that such is the case. It will be advisable to take the same precautions with reference to privy-vaults into which the excreta of yellow fever patients have been thrown, although we do not definitely know that this is infectious material. Disinfection may be accomplished either with corrosive sublimate or with chloride of lime. The amount used must be proportioned to the amount of material to be disinfected.

"*Use one pound of corrosive sublimate for every five hundred pounds*—estimated—*of fecal matter contained in the vault, or one pound of chloride of lime to every thirty pounds.*

"*Standard Solution No.* 4, diluted with three parts of water, may be used. It should be applied—the diluted solution—in the proportion of one gallon to every four gallons—estimated—of the contents of the vault.

"If chloride of lime is to be used, one gallon of *Standard Solution No.* 1 will be required for every gallon—estimated—of the material to be disinfected.

"All exposed portions of the vault, and the wood-work above it, should be thoroughly washed down with the disinfecting solution.

"To keep a privy-vault disinfected during the progress of an epidemic, sprinkle chloride of lime freely over the surface of its contents daily. Or, if the odor of chlorine is objectionable, apply daily four or five gallons of *Standard Solution No.* 2, which should be made up by the barrel, and kept in a convenient location, for this purpose.

"*Disinfection of Ingesta.*—It is well established that cholera and typhoid fever are very frequently, and perhaps usually, transmitted through the medium of infected water or articles of food, and especially milk. Fortunately we have a simple means at hand for disinfecting such infecting fluids. This consists in the application of heat. *The boiling temperature maintained for half an hour kills all known disease germs.* So far as the germs of cholera, yellow fever, and diphtheria, are concerned, there is good reason to believe that a temperature considerably below the boiling point of water will destroy them. But in order to keep on the safe side, it is best not to trust anything short of the boiling point (212° F.), when the object in view is to disinfect food or drink, which is open to the suspicion of containing the germs of any infectious disease.

"During the prevalence of an epidemic of cholera, it is well to boil all water for drinking purposes. After boiling, the water may be filtered, if necessary to remove sediment, and then cooled with *pure* ice if desired.

"A sheet of filtering paper, such as druggists use, and a glass or tin funnel, furnishes the best means for filtering water on a small scale for drinking purposes. A fresh sheet of paper is to be used each day."

Medical Society of the State of Pennsylvania.

The thirty-sixth annual meeting will be held in Scranton, on May 27, 28, and 29, 1885, commencing on Wednesday, May 27, at 9 a. m. The address in Surgery will be delivered by Dr. E. A. Wood, of Pittsburg; in Obstetrics, by Dr. C. A. Rahter, Harrisburg; in Hygiene, by Dr. J. G. Richardson, Philadelphia; in Menial Disorders, by Dr. S. S. Schultz, Danville; in Medicine, by Dr. E. T. Bruen, Philadelphia; and in Otology, by Dr. Chas. S. Turnbull, Philadelphia. The Pennsylvania Railroad and its branches, and the Philadelphia and Reading Railroad and its branches, will issue excursion tickets at the rate of two cents a mile. All who desire to avail themselves of this should notify the Permanent Secretary, stating the number of excursion orders required, and the railroad over which the party must travel to the place of meeting.

Wm. B. Atkinson, M. D.,
1400 *Pine St., Phila.* *Permanent Secretary.*

Personal.

Dr. J. W. Holland, of the University of Louisville, has been elected Professor of Chemistry in the Jefferson Medical College of this city, in place of Dr. Mallet, who resigned to return to his old chair in the University of Virginia.

The President has detailed Dr. George M. Sternberg, U. S. A.., to attend, as the delegate from the United States, the International Cholera Conference which convenes in Rome on May 15. Dr. Sternberg has sailed for Europe.

—Dr. Allard Memminger publishes an article in the *New York Med. Jour.*, February 7, 1885, entitled "Nitric Acid a Probable Means of Differentiating Bright's Disease of the Kidneys from that in which the Albuminuria is Caused by Functional Disturbances and may be Termed 'Latent Albuminuria.'"

*See Preliminary Report of Committee on Disinfectants in the Medical News of March 28, 1885.

†One litre of sulphur dioxide weighs 2.9 grammes. To obtain ten litres of gas it is necessary to burn completely fifteen grammes of "flowers of sulphur" (Vallin).

THE

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Original Department.

Communications.

DESQUAMATIVE INFLAMMATION OF THE MEATUS AUDITORIUS EXTERNUS, MEMBRANA TYMPANI, AND MIDDLE EAR.

BY LAURENCE TURNBULL, M. D., PH. B.
Aural Surgeon Jefferson Medical College Hospital, and Instructor in Post-Graduate Course Jefferson Medical College.

Owing to the mistakes made by the young physician when this class of desquamative inflammation of the epidermic layer of the ear present themselves, I consider it of importance that they should have some more definite information in regard to this class of disease of the ear, as it is almost always either omitted or confounded with accumulations of cerumen; indeed, when first observed, it is, in nearly all the ordinary cases, a deep layer of epithelium covered with a layer of cerumen, and until this layer is removed, the true character of the disease is not discovered. I will, therefore, report a few cases which will illustrate its various forms.

Case 1. I. W., aged 35, a paying teller of a savings bank, and closely confined to a heated office all the morning, yet fond of driving in the open air in the afternoon. He has been troubled from time to time with fullness in and about the ears, with deafness in the right ear, the result, he thinks, of cold air striking on that ear, owing to the opening and shutting of the door of the bank. The gentleman would relieve himself temporarily by picking a white mass from the auditory canal. In September found his deafness in the right ear so great that when spoken to in an indistinct or low tone he could not hear, so that he had to turn the left ear. He has had some pain in the upper part of the ear and temporal region, extending at times deep into the interior of the ear. The tinnitus was very distressing, and much increased during the night, so that it was difficult for him to get to sleep, causing restlessness, and on awaking was not refreshed. On account of the pressure of his duties at the bank, he had not, up to this time, been able to take a holiday for treatment.

On testing his hearing, a watch could only be heard two inches from the ear. The tuning-fork placed on the head was heard very loud in the right ear. Upon examination the auditory meatus was filled up with a white-gray firm mass, especially at the junction of the cartilaginous and bony portions of the anterior portion, where it was very dry. After removing a portion of it, the patient was directed a warm solution of bicarbonate of sodium (xx. grs. to ℥j. of equal parts of glycerine and water), applied warm 15 minutes, three times daily, and to close the meatus with a pledget of cotton.

I also directed him the following ointment: hydrarg. oxidi flav., grs. ij.; vaseline ℥ij.; morphia sulphatus, gr. ij. To be applied by means of a pledget of cotton on the end of a pointed piece of wood, introduced and rotated not allowing the cotton to remain, but putting in its place a woolen pledget, with which the patient is able to hear; also assisted in keeping the parts moist. By washing and picking out the white mass from time to time with the use of the forehead mirror, I gradually removed, piece by piece, the diseased epithelium scales, which floated in the water like

moist paper, and presented none of the yellow or brown fatty appearance so characteristic of cerumen.

It was so brittle, that when caught by the forceps only a part would remain in the blades. When the adherent mass had been removed from the junction of the bony with the soft parts of the meatus, there was found a cavity containing pus, running upwards and inwards, which clearly indicated the point of pain. In most of the cases which I have studied, pain in the ear is the exception and not the rule. It was not for many weeks that this abscess from the pressure and irritation of this tumor-like mass gradually healed under careful cleansing, and the use of a strong solution of nitrate of silver applied to the part by means of cotton on a platinum wire introduced on a Gruber tenitome handle. I directed the patient to employ at home a solution of x. grs. sulph. carbolate of zinci to the ℥j. of water by means of a pellet of cotton to the granulating surface. When at last the membrana-tympani was seen and the middle ear inflated, it was found to be only slightly opaque, having been treated in time. It was only when the last of the false membrane was removed and parts relieved from their water-logged condition, that the intense tinnitus aurum ceased.

The hearing was not much improved until the month of November, when the membrane became free, dry, and assumed its normal healthy aspect. He was then directed to use, as a precautionary measure, the ointment before mentioned and the pledget of clean wool in his right ear when riding in his carriage, or street cars, or walking out in bad weather. As a rule, in pleasant weather or indoors, nothing should be kept in the ears; but if the parts are very sensitive, or there is a perforation, a small, loose pledget of carded, clean wool is the best agent to employ, as it never packs.

Case 2. R. W. C., aged thirty-seven, applied at my office January 9, 1884. He is by occupation a druggist; from the State of Delaware; unmarried, and father and mother living. Neither of them is deaf. He has a brother who suffers somewhat from catarrhal deafness. The patient's general health is good. The right ear is the one affected, and the duration is three years; it followed an attack of pneumonia. He has no pain or discharge. Has singing, bell-like sounds all day, and at night it is like the blowing-off of steam. Has employed various agents in the ear recommended by friends, as glycerine, sweet oil, etc.; and under the direction of a physician, it was syringed out several times. Examination revealed the epithelium of the meatus thickened and altered. The membrana tympani slightly opaque and sunken, and the eustachian tube closed. Hearing distance of the right ear by a thirty feet watch only on close contact. The mucous membrane of the nose tender and swollen. The patient is subject to rheumatism.

Diagnosis.—Desquamative inflammation of the epithelium lining the auditory canal extending to the membrana tympani.

Treatment.—Removal of the diseased epithelium by means of the alkaline solution. After numerous applications, the whole of the foreign material was removed, when the surface of the auditory canal was found red, abraded, and tender, and membrana tympani opaque. The unguentum, hydrarg, oxidem flav., with tonic and astringent applications to the membrana tympani, was continued, and gradually the hearing improved. By the 18th of February, when the eustachian tube was free, he heard the ordinary watch at nine feet.

Case 3. This patient was Thomas G. R., aged 38, a salesman in a large dry goods house in Philadelphia. He applied on May 16, 1882, and reported himself well, with almost perfect hearing, January 1, 1884, and no accumulation since July, 1883. In this case one membrane was perforated from the pressure. During the year 1883, the second drum-head was perforated, being very thin, while bathing at Cape May. The treatment in this case was the same as in the two before reported, only in this case the discharge was always brownish in color, from broken-down blood corpuscles.

There were also large accumulations of dry and desquamative material which took place along the sides of the meatus, and which had to be removed with considerable force by the forceps, leaving the parts tender from the removal of the diseased epithelium.

Dr. L. W. Fox, of this city, saw this last case when I was absent from the city during the summer of 1882. In this class of cases, after the inflammation has been apparently relieved, and we think our patient cured, there remains a strong disposition to relapse for a long time. The relapses take place from various causes, but most generally they occur during the spring, autumn or winter, and are frequently the result of a cold in the head, or from exposure. These relapses are to be carefully guarded against, as a growth of connective tissue is apt to take place in the middle ear, which impairs the power of vibration of the membrana tympani, and the bones of the ear causing more or less permanent deafness. In

these cases, in which there is a perforation and an opportunity for a post-mortem, the mucous membrane of the middle ear is found much swollen in consequence of interstitial serous effusion, mixed with exudation cells, and it is sometimes ecchymosed; the fibrillæ of the connective tissue stratum are forced asunder in the form of a network by the exudation (Wendt). The epithelium is opaque and swollen, and in places raised and peeled off. The free effusion into the middle ear consists of a thick opaque fluid mucous and pus cells, and by the tearing of blood vessels in the case of very sudden exudation, a great number of corpuscles are sometimes present. The exudation is not always fluid, but sometimes firm and tough. The following is the *appearance of the membrana tympani in the acute stage* of secondary attacks or relapses : the cartilaginous meatus is swollen and tender, with uniform congestions along the superior wall of the membrana tympani; also on the periphery and along the handle of the malleus, while between the handle and the periphery the parts are lustreless and gray by saturation with serum.

In the cases of rapid exudation the epidermis will sometime appear cracked, or in some instances blisters are seen, which burst after a short time, and pour out a serous or reddish fluid into the meatus, or inter-lamellar abscess may form. (Eyseil.)

This form of ear disease, if promptly and properly treated, is very amenable to treatment, as in the first case; but should it became chronic, it will continue, as in the last case, from childhood, and may destroy the hearing entirely.

From a careful microscopic examination, several years ago, by Dr. Shapringer, of New York, of a mass of this material supplied from one of the cases which we have reported, he stated that it contained no fungus, but consisted of large epithelium cells, with only a small quantity of crystals of cholesterin. We are therefore justified in rejecting the term cholesteatoma as distinctive of their character, in order, as was well observed by Lucae, to avoid confounding them with cysts containing cholesterin, or pearly tumors, to which the name is more applicable.

In an experience and practice, chiefly in this special branch, of twenty-five years, I have found but comparatively few of the so-called *keratosis obturans*, noted and first described by Wreden, 1874. Not more than twenty-five in as many years, while ordinary cases of impaction of cerumen I see every year in the clinic and hospital of Jefferson Medical College are numbered by the hundreds, and are found in the proportion of 113 in 600 cases of diseases of the ear.* Yet we do not feel like adding a new term to the present large number in use, but will class them under the general term of Desquamative Diseased Conditions in the Ears. It is a well recognized fact, that in almost all inflammatory affections of the external ear, auditory canal, and surface of the membrana tympani, which is lined by skin, there is more or less disquamation, and in some cases the canal is filled with this gray-white or yellowish-white epithelium in the form of flakes or laminæ ; and when neglected or improperly treated, the lamina becomes united by fine crystals, and hard and indurate to such a degree that it requires weeks to remove them. The pressure which this makes first on the malleous, is soon transmitted to the stapes, causing the most distressing noises and deafness, and ultimately anchylosis of the bones.

I have had recently two cases, 4 and 5, of hypertrophy and hardening of the epidermic layer of the auditory canal and membrana tympani under treatment, and they might well be termed "keratosis obturans," from the hardness and great difficulty of removal.

Case 4. Mary M. G., aged 15, Clearfield county, Pa. The duration of the first was ten years, the result of whooping-cough. The peculiar cough remained until removed, by removing the cause. When first seen she could only hear the small clock, thirty feet, when placed in contact with the left ear, and ordinary tone voices not heard in that ear. The deposit I have been able to remove by dropping softening alkaline solutions for three weeks, and the use of either glycerine and acetic acid with the careful use of the probe and forceps the parts illuminated by the forehead mirror. When the hardened deposit had been removed, I found the membrana tympani opaque. November 6, membrana tympani clearing and free, hearing improved to five feet, and hearing of voice much improved.

Case 5. Applied at the Aural Clinic, Jefferson Medical College Hospital, October 7, with the following history: John I., aged 45, residence Philadelphia, a worker in the dock, deaf for five years. The hearing distance of right ear only $\frac{5}{25}$ inches for a twenty-feet watch. The left only on contact. The tuning-fork not heard in air, but on the bones of the head and teeth. Has never had a discharge nor pain in the ears. The noises in his head he observes like wind in a storm. The right membrana tympani very opaque,

*See tables in author's work on "Diseases of the Ear," J. B. Lippincott & Co., Philadelphia.

sunken, no umbo or handle of malleus seen. The left meatus filled with a hard, tough, yellowish-white deposit, and no impression was made upon it by syringing with an alkaline solution. This differed from a plug of cerumen which I show you, which, after a few days' softening by means of the same solution or warm glycerine, is washed out at once or at least in two operations.

November 4. After the application of the curette and eleven injections during a month of an alkaline solution, the diseased product was removed in two parts, one being a cast of the side of the meatus, and the other, the almost entire covering of the skin of the membrana tympani. The eustachian tube was opened by the catheter and vapor of ether introduced into the middle ear. Politzer's air-douche did not inflate the tube. On testing his hearing, it had improved ten feet. This patient presented himself at my clinic a second time after the operation with still improving hearing.

The opacities following this diseased condition can be distinguished from those caused by disease of the mucous layer, since in the latter the handle of the malleus is distinctly visible while it is almost invisible in cases of great thickening from this cause.

What we desired to make clear to the member of the Society* was that in his two cases of "keratosis obturans" (Wreden) presented by him as a part of his paper on "Otitis Desquamativa," was that in these rare cases there were circumscribed hypertrophy and cornification of the epidermic layer, both of the auditory meatus and membrana-tympani, so that the cerumenous glands and the linear-shaped papillæ (Gerlach) in the deeper part of the canal had become obliterated and so failed to secrete the necessary natural lubricating materials. Politzer † states that he found in a syphiltic woman, forty-five years of age, a case of this rare disease in which the epidermic layer had become hypertrophied. She was also suffering from a chronic inflammation of the middle ear. Behind the umbo there was a pointed, horny growth of about two millimeters in height, with a crater-like depression at its point, which could be removed neither by dropping softening fluids upon it, nor by a vigorous use of the probe. Beneath this peculiar formation we rarely find the membrana tympani normal in appearance; it is almost always more or less diseased, and normal hearing is very rare, so that the prognosis must be very guarded, unless the case is of recent occurrence.

We have, since the last meeting, November 19, subjected the mass removed from one of the cases of the disease known as keratosis obturans to the action of glycerine and water, and yet it is not dissolved, while the other specimen, from a case of desquamative otitis, in which the disease had not involved the deep-seated lamina, contained mixed with it, the cerumenous material, which has been all dissolved out of it, showing at the bottom the slightly-enlarged epidermic scales so often met with; and later, by ether, the fatty matter has been removed in this last specimen.

Case 6. Obstinate case of desquamative otitis medea, chronic, cured. Susie T., Milford, N. J. This young girl, when in her seventh year had a mort severe attack of malignant scarlet fever in 1879, and was first seen in March, 1880. There was entire loss of one membrana tympani or drum head, and but a remnant of the other. The meatus of both ears was swollen and covered with a deposit of diseased epithelium, scaly masses mixed with muco-pus, which was removed by a delicate scoop and by wiping out with absorbent cotton and cosmoline. While performing this simple operation, she became so faint and sick that I had to lay her down and open the window of my office, she was so very feeble and nervous, and her heart beat in the most violent manner. The ears were treated after careful cleansing by boracic acid and various other agents, but chiefly by this acid in powder or solution. She was directed the syrup of lacto-phosphate of lime to build up her broken-down constitution. Tincture of digitalis was employed to quiet the action of her heart, using various tonics at intervals, and at times having to administer the emulsion of cod liver oil, iron, and sulphate of quinia. This latter valuable remedy was given in large doses during the whole course of the treatment, with the best results, as she lived in a malarious region. The perforation in the right ear healed first, and ultimately the perforation in the left ear closed over. There were frequent relapses, which received long and careful treatment, but I saw this patient during the spring of 1884, with her health and hearing entirely restored and free from all discharge.

Case 7. E. M., aged four years, Clearfield Co., Pa., applied June, 1883, at my office; has suffered with a desquamative inflammation in his left ear since the age of ten months, and, according to the statement of his mother, lay for three

* Philadelphia County Medical Society, clinical meeting of November 19 and December 19, 1884.

† Politzer's Text-Book of the Diseases of the Ear, p. 210. H. C. Lea & Co., Philadelphia, 1883.

years after an attack of malignant measles entirely helpless and a perfect skeleton, with no hopes of recovery. At the end of four years, a friend, who had been a patient of mine, advised them to bring the boy to Philadelphia. The boy was small of his age, thin and feeble, and unable to articulate but a few words, as "Mamma" and "ho-ho." He was lame on one side from weak spine. The left ear was filled with altered secretions, while the side of the meatus was covered with dried pus and diseased desquamative epithelium; he was very deaf, and only could hear a loud familiar voice. His right ear began to discharge in 1881, from the extension of the naso-pharyngeal disease through the eustachian tube; both the left and right membrana tympani were perforated; in the left membrana tympani almost three-fourths had gone, while in the right there was only about one-fourth lost. After cleansing the ears, opening the eustachian tubes, and attending to the nose, directions were given to the mother, who was young, but capable of carrying them out. He was directed an emulsion of cod-liver oil, made with lime water, in which was quinine, with alternate doses of syrup of iodide of iron; an ointment of the yellow oxide of mercury and vaseline to be applied to the nose after careful cleansing, and the following wash was for the ears after all foreign matters were removed:

℞. Acid boracic, pulv., ℥ss.
Glycerine,
Spts. vin. rechm. absoluta, āā f. ℥j.
Aqua, ℥iss.
M. f. sol.

S.—Drop in the ear warm, after wiping out. Then with finely-powdered boracic acid blown in the ear through the day, after eleven months, May 14, 1884, he returned, the discharge from the ear none; membrane restored in both ears. Hearing almost normal, discharge still from the nose, and still somewhat lame; able to talk so as to be understood by any one. He continues alterative treatment, with boracic acid and liquid cosmoline, to the nose. The use of syrup of hypophosphate for spine, with massage and olive oil to the body and limbs.

Case 8. This patient, Helen G. M., from Trenton, N. J., visited me January 10, 1882, at the recommendation of patient 6. She was in her sixth year, and had been suffering for twelve months with impairment of hearing, with discharge of broken down pus and desquamative epithelium. This was caused by one of the most severe attacks of scarlet fever, followed by a series of large abscesses, and her life was for a time despaired of; but by careful medical attendance and a devoted mother's care, she recovered sufficiently to come to Philadelphia, being still in a weak, delicate, and nervous condition. The meatuses were filled with dried and hardened masses of pus and mucous, mixed with scales of epithelium, only a slight rim of the drum head remained. She had, as in case 6, thickening and swelling of the mucous membrane of the mouth, throat, nose, and eustachian tubes. She was treated by cleansing agents, stimulants, and astringents; but the treatment of the ears was by the mop of absorbent cotton, and once in a long while was the syringe employed. When dry pus and a mixture of the acid had to be removed, this was accomplished by a warm solution of bi-borate of soda. In these and numerous other cases, resorcin was tried alone, and in combination with chinoline and boracic acid, but the former in every instance increased the irritation and discharge, and gave the patient pain.

(*To be continued.*)

THREE CASES OF IDIOPATHIC ANÆMIA, WITH REMARKS; AND AN ANALYSIS OF THE CASES HITHERTO PUBLISHED IN AMERICA.

BY J. H. MUSSER, M. D.
Of Philadelphia.

(*Continued from page* 583.)

ANALYSIS OF THE CASES OF IDIOPATHIC ANÆMIA RECORDED IN AMERICA.

The following tables of cases are meant to show, in a compact form, the peculiarities of idiopathic anæmia as seen in America. They have been modeled after the admirably arranged table of Pye-Smith in the Guy's Hosp. Rep. (1882). An attempt has been made to separate the cases of myelogenic pseudo-leukæmia, or so-called idiopathic anæmia, in which a change in the bone-marrow has been observed, from the true idiopathic cases. For, on the one hand, some teach that this change is secondary to the anæmia; others believe it to be a separate affection entirely, a cytogenetic anæmia, idiopathic anæmia likewise existing; while still others doubt entirely the existence of idiopathic anæmia, believing it to be a pseudo-leukæmia. The first table, therefore, will conform to the criteria of idiopathic anæmia, laid down by Pye-Smith, in order to supplement his collection. Cases of secondary anæmia, and of cytogenetic anæmia, will be excluded; the anæmias which developed in the puerperal period on account of hemorrhage, will also be excluded.

In the formation of the table, care has been taken to exclude all cases which might be considered doubtful. Those are included only, with a few glaring exceptions, which either had had a blood enumeration during life, or whose nature was determined by an autopsy. It is not to be presumed that all cases of this disease observed in America will be found in the table; only those cases which have been fully recorded:

TABLE A.—Cases of Idiopathic Anæmia in which there was an Absence of Changes in the Bone Marrow, or its Appearances were not Recorded.

No.	Physician, Date of Publication and Reference,	Sex and Age.	Antecedent Conditions.	Symptoms.	Duration.	Results of Treatment or Autopsy.
1	Channing, N. E. Quart. J. of Med. and Surg., 1842.	M.	No causal antecedents.	Anæmia.		No lesions. Bloodlessness.
2	Idem (ibid).	F., 25	Pregnancy. Healthy in pregnancy. Labor, third child, normal. No hemorrhage.	Robust appearance. Increasing pallor, surface like wax. Nausea, vomiting, diarrhœa. Fever. Pulse 120–140. Cardiac palpitation; syncopal attacks. Dyspnœa. Delirium. No albumen.	16 days after confinement.	Autopsy—"Adipose membranes full of fat, serous effusions. Heart pale and flabby; no blood flowed on division of vessels. Blood small in quantity, pale liquid, uncoagulated. Spleen rather large.
3	Idem (ibid).	F., 29	Pregnancy. Three pregnancies previous. Healthy in pregnancy. Last confinement normal. No hemorrhage. Free secretion of milk, which disappeared in third week. Mammary abscess which discharged the third week.	Debility, pallor; constipation. "Sounds in the head like sawing wood."	7 weeks after confinement.	Autopsy—Whitish coagula in long sinus; ecchymoses of internal surface of dura mater. Heart moderately firm, some quite soft light-colored coagula in both sides. Blood unusually pale.
4	Pepper, Am. Jour. Med. Sci., 1875.	F., 26	Single. Hard worker. No privation. Malaria. (?)	Irregular fever; œdema; gastric disturbance; palpitation; hæmic murmurs, hemorrhages, somnolence, coma, death. No enlargement of spleen or lymphatic glands. No albuminuria. Red cells reduced in number.	4 months under observation.	No autopsy.
5	Idem (ibid).	M., 57	Vague symptoms of failing health. Slight sunstroke; jaundice; temperate; good circumstances.	Rapid failure in strength, and progresssive anæmia; dyspnœa; palpitation; nausea, vomiting; slight œdema; hæmic murmurs; very slight fever; slight emaciation; no albumen, delirium. Blood thin and dirty red; r. c. decreased.	14 months from first failure of health. Actual duration, 3½ months.	Autopsy—No affection of lymphatic glands; slight enlargement of spleen; fatty degeneration of heart, liver, and kidneys. Anæmia.
6	Howard, Trans. Internat. Med. Cong., Philada., 1876. (Date 1st case, 1871).	M., 41	Forward merchant; healthy until two years before; gradual loss of strength and color. Temperate.	Average nutrition; sallow, white, and then dull yellow color of face; no hemorrhages; distress after eating. Œdema of feet and scrotum; no albuminuria; anæmic murmur; pulsating jugulars. Suspected carcinoma of stomach. No excess of white corpuscles.	About 2 years and 2 months.	Autopsy—Spleen, liver, heart, and kidneys normal. Slightly enlarged mesenteric glands. Blood not coagulated. Organs bloodless. Serous effusions.
	Idem (ibid).	M., 37	Wholesale fruit dealer. Ague sixteen years previous. Change in color since residence in Montreal (8 years). Recurrence of former tendency to slight diarrhœa on simple cause.	Extreme pallor surface and mucous membranes. No emaciation. Venous and and cardiac anæmic murmurs. Blood watery, pale red; no excess of white corpuscles. Slight fever. Œdema of legs. No albuminuria or organic disease.	Uncertain.	No autopsy.
8	Idem (ibid).	M., 53	Bookkeeper; healthy; not robust. 1872, slight diarrhœa. April, 1874, indigestion which continued, in a mild form, all the year.	Extreme anæmia; straw-colored skin. Dyspeptic symptoms. Cardiac anæmic murmurs. Œdema. No albumen. Delirium, fainting spells, dyspnœa; palpitation. Blood thin, watery, white not increased, red lessened. After death, blood showed small red cells.	One year from first consultation.	Fatty heart, normal liver. Atrophied spleen and lymphatic glands. Serous effusions. Calcareous masses in lungs.

9	Bradford, Boston Med. and Surg. Jour., July, 1876.	F., 11	Healthy good; well fed; good family history.	No emaciation. Anæmia. Heart, liver, spleen and glands normal. 714,145 red cells per c. mm., 1 w. to 290 red. Much variation in size; all rather too small. White abnormally granular. Hemorrhage from lungs and mouth. Cerebral symptoms.	About 71 days.	No autopsy.
10	Chadwick, Boston Med. and Surg. Jour., Jan., 1875.	F., 32	Puerperal flooding.	Cardiac bruit; slight fever; vomiting.	12 weeks.	Fatty heart, capillary hemorrhages in brain.
11	Hutchinson, J. H., Philadelphia Med. News and Lib., 1879, xxxvii.	M., 50	Miner. Grief at loss of wife. No antecedent causal disease. Family history good.	Anæmia. Dirty yellow complexion. Dyspepsia; nausea. Basic, cardiac and venous murmurs. No albumen. Spleen and lymphatics not enlarged. Diminution of red cells. No increase of white. No retinal hemorrhage.	Unknown.	Improved; relapse; subsequent death from anæmia (private communication).
12	Cary, Buffalo M. and S. Jour., 1880–1881, p. 259.	F., 22	Suppression of menses by cold 5 months previous. No syphilis.	No emaciation. Profound anæmia. Fever. Pulse 110. No organic disease. Rapid and extreme exhaustion.		Direct venous transfusion. Cure.
13	Henry, Cartwright Prize Essay (Reprint. 1881, p. 36).	M., 40	Carpenter. Intemperate in sexual intercourse and the use of stimulants. Family history good.	Pallor; emaciation. Progressive weakness. Slight fever. Heart, lungs, liver, and spleen normal. No albumen. Mental hebetude, slight delirium, coma. Retinal hemorrhages. No. r. c., 525,000 per c. mm., 1 w. to 105 r.	About 25 months.	No autopsy.
14	King, J. S., Can. Lancet, 1881-1882, xiv, 383–386.	F., 27	Fever; dyspeptic symptoms; hæmic murmurs. No albumen. 625,000 r. c. per c. mm.	Liver and spleen normal. Blood pale and watery. Irregularity, in shape, and some in size, of red corpuscles. 625,000 r. c. per c. mm. No giant corpuscles, or Schultze's masses.	Uncertain. 26 weeks after confinement.	No autopsy.
15	Edes, Boston Med. and Surg. Jour., 1882, cvi, 457.	M., 25	No previous debilitating or depressing influence.	Pallor mucous membranes; skin yellow. No emaciation. Purpura, vertigo, noises in head, delirium. Diarrhœa. Dyspnœa. Vascular murmurs. Retinal hemorrhages. Blood pale and watery; r. c. 800,000 and 670,000 per c. mm. Not much deformed. A few microcytes No albumen.	7 weeks.	Autopsy — Fatty heart. Ecchymoses under serous membranes and in brain. Fatty liver and kidneys. Marrow normal microscopically. Spleen normal.
16	Bierwith and Alt., Am. Jour. Oph., St. Louis, 1884–5, i, 147–149.	F., 23	Poor health; 4 years married; menses regular.	Blood pale and watery; r. c. larger and paler than normal. No rouleaux. No increase in white. Retinal hemorrhages.		Improved under treatment.
17	Graham, Canada Pract., 1884, ix, No. vii.	M., 30	Farmer. Married.	Pallor. Emaciation. Temporary paralysis, lower extremities. Gastralgia. Pale, greenish countenance. Fever. No organic disease. 1,500,000 r. c. per c. mm.	10 months.	No autopsy.
18	Idem (ibid).	M., 47	Tannery business. Good family history.	Pale, yellow countenance. Slight emaciation. Debility. Dyspeptic symptoms. Cardiac bruit. Dyspnœa. Fever. Œdema. 1,500,000 r. c. per c. mm. Irregular caudate in shape.		Improved with Fe. and quinia.
19	Idem (ibid).	M.	Attributed disease to catching cold, lying on grass in perspiration.	Pallor. Slight emaciation. Dyspnœa. Anæmic murmurs. Œdema. 1,580,000 r. c. per c. mm. Irregular in outline, elongated, and presenting projections.		Cured.

TABLE A.—Cases of Idiopathic Anæmia in which there was an Absence of Changes in the Bone Marrow, or its Appearances were not Recorded.—*Continued.*

No.	Physician, Date of Publication and Reference.	Sex and Age.	Antecedent Conditions.	Symptoms.	Duration.	Results of Treatment or Autopsy.
20	Hamill, R. H., Philada. (private communication).	F., 31	Married. Three children. Anæmic symptoms noticed sixth month of gestation. Parents healthy.	Pallor extreme. Anæmic murmurs. Œdema. Copious menstrual flow. Vomiting and diarrhœa. No albumen. Progressive course. Liver and spleen normal.	Uncertain.	Fatty heart and kidney. Ecchymoses and serous effusions. Spleen slightly enlarged.
21	Shattuck, G. B., Boston M. and S. Jour., Jan., 1885.	M., 38	Farmer. Parents died of phthisis. Ague two years previously. Habits good. No depressing influences. No syphilis.	Debility. Physical signs, subacute pneumonia. Pallor extreme. Emaciation. Epistaxis. Retinal hemorrhages. Spleen enlarged slightly. Fever (97½° to 102°). 595,000 r. c. per c. mm., 1st count; 1,180,000 r. c. per c. mm., 2d count; 3,025,000 r. c. per c. mm., 3d count.		Cured. Arsenic in increasing doses. Early diagnosis, phthisis. Cardiac bruit absent.
22	Curtin, Phila. Co. Med. Soc., Trans., 1885.	F., 38	Great shock, 3½ years previous to anæmia.	Pallor. Debility. Emaciation. Palpitation. Dyspnœa. Vascular murmurs. No albumen. Occasional vomiting; constipation. No blood count. Suppression of menses.	Anæmia 1 year.	No autopsy.
23	Idem (ibid).	F.	Shock, 3½ years previous to anæmic manifestations.	Pallor. Debility. Anæmic murmurs. Dyspeptic symptoms. Indigestion. Slight diarrhœa. Palpitation. Dyspnœa. No albumen.	3½ months.	No autopsy.
24	Hinsdale (private communication). Case to be published in Am. Jour., Med. Sci., April 1885, in full.	M., 22	Bar tender. Used stimulants freely. Previous health excellent. No syphilis.	Pallor. Yellow conjunctiva. No emaciation. Constipation. Anæmic murmurs. Retinal hemorrhages. Spleen enlarged in vertical line. No enlarged lymphatics. Fever. 985,000 r. c. per c. mm., 1st count; 890,000 r. c. per c. mm., 2d count; 4,500,000 r. c. per c. mm., 3d count.		Cured. Arsenic in increasing doses.
25	Haven, H. C., Archiv. Pediatriacs, Dec. 15, 1884.	F., 10	No family history. At four years pertussis and measles. Illness began six weeks before admission.	Pallor. Debility. Vomiting. Diarrhœa. Œdema. Hemorrhage. Liver, spleen, and lymphatics not enlarged. Heart normal. Venous hum, and arterial murmurs. Irregular fever.		Autopsy—Serous effusion. Cytogenitic organs normal. Fatty heart and kidneys.
26	Musser (Case I, supra).	F., 42	Shock, 5 years before death. Married. No children. Hard worker. No deprivations. Family and personal medical history good.	Pallor, sallow. Not emaciated. Œdema. Hemorrhages. Vascular bruit. Cerebral symptoms. Dyspepsia. Palpitation and dyspnœa. Reduction of red cells. No albumen.	Anæmic symptoms 1 year.	Autopsy—Fatty heart. Serous effusion. Ecchymoses. No lesion of marrow. Iron reduced in blood.
27	Idem (Case II).	M., 41	Hard worker. Moderate circumstances. No deprivations.	Anæmia pronounced. 1,000,000 red cells. Dyspnœa and palpitation. Slight albumen; no casts.	Over 2 years.	Cured. Iron, rest, food, etc. Relapse. Permanent cure.
28	Idem (Case III).	M., 44	Saloon-keeper. Use liquors freely. Not deprived of life's comforts. Good family history.	All usual anæmic symptoms rapidly develop, and pronounced; r. c. 570,000 per c. mm.; irregular in shape, increased in size.		Improvement. Relapse. Subsequently case lost sight of.
29	Bruen, Medical News, Philadelphia. 1884.	F., 47	Metrorrhagia; malaria. Fast life.	Pallor; yellow tint; dyspeptic symptoms. Spleen enlarged. 600,000 r. c. per c. mm. Change in shape of cells. Vascular bruit.		Improvement. Bichloride of mercury.
30	Bellinge, F. A., Pacific M. and S. Jour., 1879, xxii, 504–509.	M., 65	Retired plasterer. Yellow fever in early life. Good habits.	Pallor; œdema. No emaciation. Spleen, liver and glands normal. No albumen. Hemorrhage once. Constipation; dyspeptic symptoms; coldness and numbness most marked symptoms. Mental hebetude to coma.	About 18 months.	No autopsy.

(*To be continued.*)

Hospital Reports.

WESTERN PENNSYLVANIA HOSPITAL.

Service of W. J. Asdale, M. D.

[Reported by Wm. H. Mercur, M. D.]

Case 1. Congenital Deficiency of Vagina (Atresia Vaginæ), With Rudimentary Development of Uterus.

The patient, M. B., a colored woman, aged 24, single, cook, was admitted to the hospital, and gave the following history: She thinks she has some "female weakness." Says she began to menstruate when about 13, at which time she was quite unwell for nearly a week, confined to bed, and suffered a great deal of pain, but lost very little blood. After the discharge had ceased, lingering pains were present in the lower part of her abdomen, which disappeared, however, before the next menstrual period. Each succeeding menstrual occasion was ushered in by severe paroxysms of pain, which varied more or less in intensity until quite recently, when they became so severe as to incapacitate her entirely for the time being for her work, and led her to seek treatment here. Medical assistance had often before been sought, but the remedies prescribed brought no relief. A vaginal examination, now for the first time made, revealed the following interesting condition: The finger could be introduced at most two inches, when it impinged on a smooth, firm arched membrane stretched apparently across the vagina. The os uteri could not be felt. The woman was placed in the genu-pectoral position, and a Sims' speculum was introduced. The membrane was now fully exposed, and no openings could be seen in it, but three minute red spots were observed about its centre or summit. Dr. Asdale, after patient trial, succeeded in passing a delicate silver probe through one of these spots, the probe passing apparently into a small cavity, as it could be freely moved about. Probes of larger size were immediately and successively introduced, and finally Atlee's smaller dilator was passed, the blades separated as widely as possible, and by the use of scissors an incision about an inch in length was made, permitting the discharge of a small amount of viscid mucus. A finger was then introduced into the opening, but the uterus could not be felt. The opening was then packed with absorbent cotton sprinkled with iodoform. At a subsequent examination, a No. 8 steel sound was introduced into her bladder, the beak turned backwards, and with the finger of an opposite hand passed into the rectum, the sound could be distinctly felt touching the anterior wall of the bowel, this manœuvre demonstrating the absence of the uterus from its normal position; the beak of the sound in this instance sweeping over the fundus of a womb rudimentary in size and strongly retroverted. The treatment in these cases, which is palliating, merely, consists in an endeavor, by packing, to enlarge and keep permanently open the incisions thus provided; the results are generally, however, nugatory.

Case 2. Ovariotomy.

The patient, M. F., primipara, aged 32, was sent to this hospital with the diagnosis of "nervous prostration." She has been, she stated, considerably reduced in flesh. She complained of frontal headache, languor, loss of appetite, and sleeplessness, and was much depressed in spirits; disposition nervous, and at times slightly hysterical. Auscultation and percussion revealed no abnormal state of heart or lungs. As she menstruated regularly and painlessly, and as no special symptoms referable to the genital or other pelvic organs were complained of, no vaginal examination was made at the date of her admission. She was permitted to take rest in bed at her pleasure; good nutritious food was ordered for her, also a tonic containing iron and phosphorus. No marked improvement resulting from this treatment, a vaginal examination was made by Dr. Asdale, and a small tumor was discovered in the region of the right ovary; it was mobile, regular in outline, of globular shape, and fluctuating.

Diagnosis.—Par-ovarian cyst. By bi-manual manipulation this tumor could be felt quite distinctly, although at this time scarcely the size of a walnut. Its removal was advised. A delay of a few weeks occurred before a suitable room was available, during which time the tumor perceptibly increased in size. The operation was performed by Dr. Asdale, in a private room, with few spectators, and was done in a strictly antiseptic manner, *i. e.*, the utmost cleanliness was observed in every particular. An incision, four inches in length, was made in the middle line between the umbilicus and pubes, being, later, a little extended below. All hemorrhage was promptly checked as the operation proceeded. The peritoneum, extra-vascular in this case, was now reached, incised upon a grooved director, and its edges secured to the sides of the incision by delicate silk sutures passed out through the integument. The incision was now held agape by assistants by the use of retractors applied over small linen napkins, folded to include the abdominal wall on both sides. The hand was now introduced into the abdominal cavity and the intestines lifted and gently drawn to one side, being retained in this situation by a large flat sponge. The tumor was now brought into view, and it could be distinctly seen that it was a cyst arising from the inner border of the ovary. Its wall was thin, many large vessels marked its surface, and the right Fallopian tube, flattened and considerably congested, was stretched across it. On account of this complication, the entire tumor, including the ovary and the tube, was removed. The pedicle was secured by being transfixed by a stout double ligature, which, after being interlaced, was tied both ways, and its ends cut off short and dropped in. Everything was then thoroughly cleansed; the small silk sutures above-mentioned were removed; the edges of the wound accurately approximated and secured with silver sutures. A dressing of iodoform gauze dipped in very hot water was then applied; this was covered first with a thick layer of absorbent cotton, then with oiled silk, a flannel binder completing the dressing. The case made a rapid recovery, no rise in temperature or pulse occurring. After the lapse of a week, the dressing was re-

moved, and the entire incision, with the exception of one spot in the lower part, was found to have united by primary intention. All the sutures were removed on the tenth day. She has greatly improved since the operation, and now, instead of being emaciated, nervous, and low-spirited, she is getting fat, sleeps well at night, and is in good spirits, and is able to go back to housework again.

Pending the operation in this case, Dr. Asdale remarked: "I would like to lay some stress upon the importance of early diagnosis in these cases. Many women seek the advice of physicians, or come to a hospital invalid, and volunteering the information that they believe themselves sufferers from female weakness." This description of the case, it would seem, is expected to cover any and all manner of disability or disease of the womb and contiguous organs; and further, the physician, it appears, is expected to comprehend the situation and to meet it accordingly, and without any special investigation. The frequent use of this expression is calculated to lead the unwary physician into a habit of carelessness in diagnosis and excessive routine in prescribing. Hence, it occurs that the busy general practitioner, although conscientious and usually considerate, is sometimes betrayed into a laxness in attention to his duty in these cases, leading him to dismiss them without having any well-defined conception of the pathological condition involved. Important, even grave, lesions may thus be overlooked. Again, hasty or hap-hazard exploratory examinations in cases of obscure disease in the female, are as much to be deprecated and are as mischievous in their tendencies as is the often-iterated "meddlesome midwifery." When called to attend a female who has reached the menstrual epoch, and who suffers from severe symptoms referable to the pelvic viscera, or whose history details mild but persistent or recurring distress, which has its origin, possibly, in the womb or its annexes, it becomes your duty to ask for and make an exploratory examination, delicately, but in a "painstaking and thorough manner." A zealous regard for your patient will not be misunderstood. Motives of delicacy, upon the part of your patient, will seldom be allowed to interfere; your services will be appreciated, and justly so, because being more intelligently and better directed. More than this, you will be rewarded by the satisfaction which you cannot fail to experience, through the application of the principles of correct diagnosis.

NOTE.—The napkins used by Dr. Asdale are of the finest linen, eight inches square, with hemmed edges, and are prepared for use by being dried out of a solution of carbolic acid. The silk sutures above referred to were used to prevent stripping of the peritoneum from the abdominal wall.

MEDICAL SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, February 26, 1885, the President, Dr. Shakespeare, in the chair.

Synostosis of the Vertebral Column.

Presented by A. Sydney Roberts, M. D.

This specimen of synostosis, or calcareous fusion, of the dorsal and lumbar vertebræ, was removed from the body of an aged man that had been sent from the almshouse to the dissecting-room of the University of Pennsylvania. The pathological character of the specimen will alone be of interest, as all facts pertaining to a personal or clinical history of the individual were unobtainable.

The vertebræ, before my attention was directed to them, had been macerated and boiled, destroying thereby all evidence of the nature of the inflammatory process that caused such extensive synostosis.

In referring to the specimen, it will be noticed that the vertebral column is held in a rigid position by a deposit of calcareous plastic material, that extends from the fifth dorsal to the sacrum. In the dorsal region, to the right of the anterior common ligament, a broad ribbon-like band of the deposit covers the bodies of the lower seven vertebræ. The same fusion exists to the left of the median line, between the seventh and ninth dorsal. It is here interrupted by an intevertebral interspace, to again appear between the eleventh and twelfth dorsal, and in first and second lumbar. The smooth, plastic character of the effusion is materially altered in the lumbar region, especially noticeable between the bodies of the first, second, and third, it is here thickened and nodular, with occasional bony stalactites, markedly contrasting with the smooth ribbon-like band of the mid-dorsal.

The vertebral laminæ frequently coalesce, especially noticeable between the fourth and fifth lumbar and in the lower dorsal region. The cretaceous deposit has occurred in the structures of the intrinsic ligaments of the spine, or those short, firm bands that bind the approximating surfaces of the vertebræ together. Between the fourth and fifth lumbar and the attachment of the latter to the sacrum, the ligamentous structures are all involved by the deposit firmly cementing the superincumbent column to the sacrum.

The articulating facets of the vertebra, with but few exceptions, show evidences of chalky deposit. These margins are nodular and "frilled." Between the tenth, eleventh, and twelfth dorsal, the articulating facets are obliterated by anchylosis. The same fusion exists between the facets of all the lumbar vertebræ. The extremities of the lower dorsal spinous processes and the last two lumbar are united by ossification of the supraspinous ligament.

Corresponding with this anomalous condition of the vertebral column and its articulating facets, a similar process may be noted to have occurred at the sacro-iliac juncture; the margins of the articulating plane are here encrusted by calcareous nodules. About the margins of the articulating surfaces for the heads, and tubercles of the ribs, the same encrusting chalky concretions have been deposited.

With a view to ascertaining the nature of these plastic effusions, and in lieu of the evidence that would have established the etiology of the affection, had a careful autopsy been held, I examined portions of the deposits, with the nitric acid and ammonia test, with the hope of detecting the presence of uric acid. The results

were negative. A crystalline structure could not be detected by microscopical examination; the mass appeared amorphous, yielding bubbles by the addition of acetic acid. It was, no doubt, largely composed of the carbonate and other salts of lime. I think it may be inferred that the individual from whom these vertebræ were removed had been afflicted with chronic rheumatic arthritis, as the specimen, at least shows the characteristic, deposits of the disease.

A case of

Cyst of the Broad Ligament

was presented by Dr. C. M. Wilson.

Spondylitis of the Dorsal Vertebræ, with Miliary Tuberculosis of the Lungs.

Presented by A. Sydney Roberts, M. D., for Dr. Wm. G. Porter.

Frederick H:, a gunsmith, æt. 23, a native of Switzerland, was admitted into the surgical wards of the Philadelphia Hospital, under the care of my colleague, Dr. Porter, on January 9, 1885.

He complained of general malaise, great prostration after slight exertion, and a sharp paroxysmal pain over region of sternum and about the right shoulder-blade. Had always enjoyed excellent health; his parents are healthy and living. Was a moderate drinker, and without any venereal taint.

During the latter part of Aug., 1884, five months before admission to the hospital, he commenced losing flesh without apparent cause. The symptoms of pain soon followed, located over the ensiform appendix, and a month later he was incapacitated for work by extreme weakness. Upon date of entry, a marked angular kyphosis was noticed in the mid-dorsal region of the spine. Pain was now constant in anterior portion of chest, and greatly exaggerated by motion. Vertebral column was rigid, normal curves obliterated by spasms of excitor-spinal muscles.

One week after admission an elastic swelling appeared below the inferior angle of the right scapula; rapidly losing its circumscribed character, it spread in all directions; a month later it covered the entire posterior half of the trunk, from the spine of the scapula to the belly of the quadratus lumborum, its anterior margin being defined by a perpendicular line corresponding to the pectoral fold of the axilla.

I first saw the patient February 13 (one week prior to his death), he had a rapid, small pulse, shallow respiration, dry, parched skin, and a temperature of 101°. The abscess had so covered the lump that it could only be detected by deep pressure. He grew rapidly weaker; morning temperature ranged between 99° and 100°, with an evening rise to 100°, 101°, and 102°; it did not vary from this range; the two days before death it then fell to normal (98°), and remained there. He died on February 20, 1885.

Dr. Shakespeare has presented the following report of the post-mortem:

Autopsy.—A large fluctuating abscess was noticed externally, covering the posterior portion of the trunk—extending along the spinal column from the third cervical vertebra to the first lumbar. Skin covering area of distention discolored and mottled. Upon cutting into sac of abscess about one gallon of greenish, stinking semi-purulent fluid escaped. Dorsal muscles in region of hump dissected away from the vertebra by the burrowing of pus, and, in the main, destroyed. The scapula had likewise been separated from the trunk by the sac of abscess pushing under its inferior angle.

Distension of tissue marked on right side of column. The spinous processes of the dorsal vertebræ were freely movable at apex of lump in all directions.

Thorax.—From within, showed firm pleuritic adhesions in each cavity; more extensive on right side. Lobes firmly bound together. One or two small normal areas at apex of upper lobes; lung tissue mainly crepitant throughout. Cut surface exhibits cavities in upper lobe. The balance of lung-tissue of each lobe is studded with grey tubercles. Left lung is in a similar condition, with extensive congestions. Bronchial glands not enlarged. Heart and pericardium, normal.

Liver.—Small; color, red; appearance of cut surface normal. Numerous diaphragmatic adhesions. Capsule thickened irregularly. Gall-bladder normal.

Spleen.—Flabby; numerous adhesions to diaphragm, with evidence of peritonitis. Dark maroon color, slightly mottled. Pulp, soft. Size, normal.

Kidneys.—Slightly enlarged. Capsule readily stripped, leaving a pinkish-grey surface, with some injection of vessels between the "pyramids of Ferrein." Cut surface shows cortex thicker than normal; nodulary portion pink in color.

Vertebral Column.—The sac of the abscess within the thorax occupied the region of the media sternum. It covered the bodies of all the vertebræ from the second to tenth dorsal. The anterior common ligament was destroyed, and these surfaces were eroded; caries had eaten away the greater portion of the bodies of the seventh and eighth dorsal. The heads of the ribs articulating upon these vertebræ were loose in the sac of the abscess.

Thursday evening, April 9, 1885, the President, Dr. Shakespeare in the chair.

Case of Abscess in the Supra-Renal Capsules.

By Dr. Edward T. Bruen.

The accompanying specimens were removed from the body of May S., æt. 57, who died in the Philadelphia Hospital. Two weeks before death she was admitted to the medical ward, and within a few days a circumscribed swelling in the left femoral region developed into an extensive abscess. Death occurred apparently from septicæmia. No satisfactory previous history could be obtained.

Post-mortem examination disclosed left kidney one-third larger than normal. Capsule quite adherent. Upon removal, the section showed a granulated surface, pale and mottled. The pelvis of the kidney much dilated, *i. e.*, general evidences of parenchymatous nephritis.

Supra-renal body very much enlarged, and closely united with the kidney by strong inflammatory adhesions. It was of the size and shape of a hen's egg; on section showed cystic degeneration or softening of the medullary portion.

The contents of the cyst being a thick, purulent, creamy liquid, filled with cheesy particles.

The cortical portion shows fibroid thickening, forming a dense connective tissue wall ¼ to ½ inch in diameter.

The right kidney was of normal size, but showed similar changes to the left.

Right supra-renal body normal.

Other abdominal organs normal; no peritonitis.

Abdominal and other lymph-glands throughout the body normal.

Thoracic organs normal.

On examination of left femoral region a large tumor was found. Upon section, pus exuded freely, and a large abscess was discovered between the extensors and adductors, and lying beneath the sartorius. The abscess extended into the hip-joint, the acetabulum, and periosteum of the head of femur were eroded.

The comparative rarity of disease of the supra-renal body lends an interest to any lesions affecting it. Dr. Shakespeare has made some sections of the capsule of this tumor, without finding any tubercular structure. There was no bronzing of the skin, nor any other symptoms than those naturally to be expected in association with a large abscess, such as was found in this case. These facts, together with the unilateral character of the lesion, incline me to consider this specimen as one of abscess in the supra-renal body.

Dr. O'Hara asked whether this might not be a surviving abscess left after the absorption of other pus centres as he thought sometimes occurred.

Dr. Nancrede combatted this novel view, contending that while fugitive visceral *congestions* sometimes occurred in pyæmia, which readily disappeared, as well as certain collections of white blood cells in the thecæ of the tendons and the bursæ contiguous to joints, yet he did not believe that septic embolic-producing infarcts could be absorbed, as maintained by Dr. O'Hara. Besides, if this explanation were correct, the clinical history should indicate something of the sort, which it did not, being one of *septicæmia*, not pyæmia.

Dr. Bruen said that there were one or two points of interest upon which he had not touched in the notes already read. The patient had led a dissipated life, having been brought into the hospital from one of the "slums" of the city. He had supposed that the woman had received some injury such as a blow which had given rise to the abscess in the groin, and she had died with symptoms of septicæmia. He had therefore regarded the abscess in the renal capsule as secondary. The localization of the pathological process in but one capsule—the absence of bronzing of the skin, vomiting, or vaso-motor disorder separated the case from Addison's disease. Indeed, it may be said the ensemble of the latter disease was wanting. Cases of Addison's disease have been described as being associated with abscess; but the disease was always bilateral and in association with a special train of symptoms, and with the absence of other pathological processes in the system. The most valuable compilation of cases of diseases of the supra-renal capsules up to the year 1866 could be found in the seventeen volumes of the Transactions of the London Pathological Society, 196 cases having been collected by Dr. Greenhow.

Specimen of Aneurism of the Aorta with Rupture into the Trachea in Two Places and Perforation of the Œsophagus.

Presented by Dr. Osler.

W. J., aged fifty-four years, colored, a teamster by occupation, and accustomed to do heavy work. Has been healthy and strong; no history of syphilis. In August, 1882, he began to suffer with pains in the chest and left shoulder, but he did not have any serious inconvenience until September, 1883, when he was attacked with cough and thoracic trouble, possibly pulmonary, which kept him in the house and in bed for several months. It was not until May of last year that he was able to work. Since July he has had at times attacks of shortness of breath, with wheezing, and often at night has had to sit up in bed. Within the past three weeks the pains in the shoulder and down the left arm have become very severe, and the cough and shortness of breath have increased. Note on admission was as follows: Well-built man, face thin, general musculature good. Inspiration rough and noisy, expiration loud and harsh, and often accompanied by a brazen, laryngeal cough. Respiration 18 per minute; can rest in the recumbent position. On inspection, the left side of the neck is much flattened, especially above the clavicle, and the sterno-mastoid muscle on that side is evidently atrophied. Apex beat visible in normal position. No abnormal pulsation; slight visible pulsation in vessels of neck. Palpation in the ordinary way, negative, but on firm pressure with one palm on the upper bone of sternum and the other on the back a distinct impulse can be felt and the second sound is accentuated; deep pressure reveals pulsation above sternum and behind left sterno-clavicular joint. Percussion reveals a slight area of dullness over left half of the manubrum sterni and beneath left sterno-clavicular joint. Heart dullness not increased. Auscultation; heart sounds clear. At sterno-clavicular joint, when the breath was held, there is a soft double murmur, the diastoltic the louder, and the second sound seems markedly accentuated. These murmurs can be heard over the left carotid and in supra-sternal notch. The tugging at the trachea was marked on elevating the larynx; pupils equal. The left radial pulse is smaller than the right, and is slightly retarded. Lungs negative; loud tracheal and bronchial stridor; no pressure signs on either bronchus. Patient expectorates much thin muco-serous fluid, which is blood-tinged, and at times there are more consistent sputa containing much blood. He was ordered to take twenty grains potassium iodide t. d. and to rest quietly in bed; no restriction as to diet. Laryngoscopic examination showed that the left cord was immobile. Within three weeks he was greatly benefited as regards the pains, cough, and wheezing, and the blood had disappeared from the sputum. Thoughout February he remained very well, having occasional attacks of spasmodic coughing at night, which were relieved by spts. æther comp. His general health improved, and he was allowed to get about the ward. Sputum occasionally tinged with blood.

On March 19th he was shown to the class and the following changes noted; Slight increase in substernal dullness on firm percussion; more

marked accentuation of second sound over this region; persistence of the double murmur, which was now also to be heard just to the right of the sternum and at the aortic cartilage, and at this point it was the loudest. No increase in the pulsation, but in certain lights a slight impulse at the upper part of the sternum was visible. At the beginning of the month he began to be more wheezy, the stridor was very marked, and the dyspnœa became urgent, so that he had to sit up in bed. Sometimes these attacks would come on suddenly. On the 3d and 4th the dyspnœa was severe, and he got much weaker. On the 5th and 6th he spat up some bright blood, but not in any great amount, and gradually sank, dying at 9:30 p. m. The specimen removed by Dr. Hamaker shows an aneurism of the aortic arch, which occupied a position between the first bone of the sternum and the spine, very firm, solid, and about the size of an orange. The entire arch is dilated, but the sac of the aneurism involves especially the upper posterior part, and is lined with dense, yellow, fibrinous laminæ. The orifices of the innominate and left carotid are free, that of the left sub-clavian is considerably narrowed by atheromatous ridges. The great veins are not compressed. The left recurrent laryngeal passes round the sac, is much stretched, and looks thinned; the right is normal. The trachea is much compressed about the middle of its course, and the aneurism causes a marked bulging on the left side, where two perforations can be seen. The upper one, about 6 c. m. from the bifurcation, is only 2 or 3 mm. in diameter, and the tissues about it are thickened, dark, and the mucosa somewhat fibroid. The lower orifice is smaller, and looks more recent. Neither of these lead directly into the sac proper, but into a small pocket situated between the dense laminæ of fibrin and the thinned tracheal wall. On inspecting the œsophagus, an oval perforation was found 7 c. m. from the cricoid cartilage, which communicated directly with the sac, but was partially blocked with fibrinous clots. The stomach was found distended with fresh clots, and there was much altered blood in the small intestines. Collapse and congestion of the bases were the only changes in the lungs. The heart was not hypertrophied; valves were normal; muscle substance flabby and in a state of fatty degeneration, and brown atrophy.

The points of interest in this case were the repeated bleedings extending over several months, and the associated wasting of the muscles of left side of the neck. At first the bleeding was looked upon as an indication that erosion of the trachea had occurred, but subsequently it was thought more probable that it came from swollen mucosa at the site of the compression. No doubt the first supposition was the correct one, as the upper of the perforations had probably been the source of the bleeding, but the firm leathery clots effectually prevented any profuse hemorrhage. The final bleeding into the œsophagus also took place very slowly, probably during the last thirty-one hours of life, as there was dark much altered blood in the ilum. It is impossible to say upon what the atrophy of the neck muscles depended, as no careful dissection of the neck was made of the nerves in that region; possibly the sympathetic was affected, but there was no difference of the pupils.

In reply to a question, Dr. Osler said that the iodide of potassium was given chiefly with a view of relieving the pains, and it had the desired effect.

Dr. W. A. Edwards read an elaborate description of a specimen of the lungs where the right had four lobes. The paper was accompanied by a careful drawing of the specimen, which had unfortunately been destroyed by the evaporation of the preserving fluid.

Dr. Osler asked whether there had been any dissection made of the bronchi and blood-vessels of the abnormal lobe.

Dr. Edwards replied that no very careful dissection had been made, as he wished to preserve so rare a specimen; but as far as his examination went, he could see nothing abnormal.

Dr. H. R. Wharton presented a specimen removed by amputation from a patient in the University Hospital, under the care of Prof. Ashhurst, which showed a marked degeneration of the knee-joint resulting from inflammation of that articulation. The patient from whom this specimen was removed was a man aged forty years, who three years before had received a slight injury of the right knee, which caused him more or less trouble up to January, 1885. At this time, while at his work, he twisted the affected knee; this injury was followed by an attack of acute inflammation, which went on to suppuration and destruction of the cartilages. The patient, when admitted to the hospital, had a high temperature, profuse sweats, and a rapid and feeble pulse. His condition was so urgent, that it was deemed advisable to remove the part amputated, rather than to make use of the more conservative operation—excision of the knee-joint.

Juvenile Drunkards.

A boy fourteen years of age was admitted into the Royal Southern Hospital in the afternoon of Sunday, the 15th of March, in an insensible condition. He had been found by the policeman on duty lying in a gutter. Dr. Gordon, the house-surgeon, found him in a state of collapse from alcoholic drinks, and applied the stomach-pump; but it was some time before he was completely restored. It subsequently transpired that the boy reached home late on Saturday night in a state of intoxication, and having slept this off, consumed two pints of beer and two glasses of whisky between three and five o'clock on Sunday afternoon. Commenting on this case, the *London Lancet* says: "Disgusting though this is, it is only an aggravated example of what is sadly too common in this city in the young of both sexes."

—Some alarm, it is said, is being felt in Mauritius at what is supposed to be a fresh outbreak of the fever which proved so fatal in many parts of the island a few years ago. A very bad outbreak has already taken place in the western suburb of Port Louis, which is chiefly inhabited by the very poorest classes. It is said that there is scarcely one house free from fever, and in many families as many as ten or twelve persons have been attacked, frequently with fatal results.

EDITORIAL DEPARTMENT.

PERISCOPE.

Treatment of Chronic Ulcer of the Leg.

Dr. Charles P. King thus writes in the *College and Clinical Record*, January 1, 1885:

There is, perhaps, no class of diseases within the whole domain of surgical practice so difficult to manage successfully as those of chronic ulcer. I think that my brother practitioners who have had any experience in the treatment of these cases will sustain me in the above assertion. It has been my misfortune, during a practice of some seventeen years, to have had quite a number of these cases, and I do not think it egotistical on my part to say that I have been very successful in their management. The case I am about to report is the worst that I have ever seen in my private practice, and hence I have been constrained to report it, thinking it might prove of interest to your many readers.

Mr. McV., aged twenty-three, unmarried; occupation, a brick-mason. He is a robust, healthy-looking man; says he has never had syphilis or gonorrhœa; is not of a scrofulous diathesis, and is not a drinking man. Was struck on the ankle-joint in January, 1883; ulcer made its appearance in the following March, on the outer half of leg, at or near the lower third; was about the size of a dollar; followed by a second ulcer, somewhat larger, just above it. He was treated for some time before I saw him, but he says he derived no benefit from treatment; became discouraged and commenced using patent medicines, salves, etc. Came first to me for treatment on August 3. On examination I found the ulcers were as large as a man's hand, and covered nearly the whole of the middle third of the leg. The epidermis around the ulcers was of a white tinge, ulcerated surface of a purple hue, indicating an impoverished condition of the blood; the system was generally debilitated, the kidneys did not act; appetite poor; no fever. The limb was enormously swollen, so that he could not put his foot on the floor without producing great pain. Informed him that rest was paramount to everything else in the way of treatment, and that if he ever expected to recover he would have to quit work for a season, keep the foot elevated, and avoid everything that might have a tendency to cause either local or constitutional disturbance. Told him that recovery would be slow, and that he must have patience, and not be discouraged if the ulcers were slow in healing.

Treatment was as follows: As there was very much inflammation present, the parts being very much swollen, and the ulcer presenting an angry appearance, I ordered the application of flaxseed poultices for several days, after which I applied locally to ulcers, with a camel's hair brush, a solution of nitrate of silver, three grains to the ounce of water, every morning. Internally, gave a laxative pill every three or four days for the first two weeks, together with the following prescription:

℞. Potassii iodidi, ℥j.
Hydrargyri bichloridi, grs. iij.
Comp. syr. stillingiæ,
" " sarsaparillæ, āā ℥iij. M.
Sig.—A teaspoonful three times a day.

Directed patient to wash ulcers every night and morning with tepid water and Castile soap, then bathe parts with a carbolic acid solution which I had prepared. Continued this treatment fully ten days before there was any apparent change for the better. The swelling gradually subsided, the ulcers began to assume a more healthy color, and healthy granulations made their appearance over the whole inflamed surface. Then commenced using surgeon's cotton with vaseline as a dressing, for a short period, after which I strapped limb with adhesive plaster and bandaged leg from foot to knee, taking care that the bandage was so applied that the pressure would be equalized over the entire limb. Was in my office last on September 3; redressed limb; granulations healthy, and covered nearly whole surface of ulcerated portion. Changed dressing, using the following:

℞. Iodoform pulv., grs. xx.
Vaseline, ℥j. M.
Apply every night on retiring.

He recovered rapidly from this time. At this writing I am happy to say that the ulcers have entirely healed, and that he has returned to his work as usual.

Had not the disease yielded to the above treatment, it was my intention to apply a rubber bandage to the limb, as advocated by some of our leading authors. I have great faith in its efficacy in some forms of chronic ulcers. My prognosis in this case, when I first saw it, was anything but favorable, for it was the worst case I had ever seen in my practice, although such cases are common in our hospitals.

We should not, therefore, despair in our treatment of any case, however unpromising it may at first appear, as good results frequently follow when we least expect them.

Tobacco Poisoning.

Dr. L. G. Hardman thus writes in the *Atlanta Med. and Surg. Jour.*, February, 1885:

Mrs. W., age about 40, a woman of medium size, fair complexion, moderate health, a seamstress, has suffered at times with neuralgia. Has been a constant user of tobacco for thirty years, chewing, smoking, and snuffing, all of which she continued until a short time ago, when she was advised to leave off smoking, as it was believed to be the cause of her neuralgia. This she did, but continued to chew and use snuff. On the 5th of August, 1884, I was called to see her about one o'clock in the day. When I arrived I received this history of her case: While at the shop, at her usual vocation, with her husband, he purchased her a box of snuff between 10 and 11 o'clock in the day, and a short time afterward she left the shop and went home to look after her

household affairs. She went home alone, and was alone for an hour or more before any one came. About 12 o'clock her husband came home—his usual dinner hour—and, on entering the door, found her lying on the floor unconscious, almost helpless, and sweating profusely. When he spoke to her she gave no answer. She was put on the bed. She had vomited freely over the room and on her own person. There was evidence that she had prepared dinner and had eaten some before she was stricken down. When I examined her, I found she was unconscious; surface cold, almost pulseless, and occasionally she would move a hand or foot and groan. Respiration slow but not stertorous; inclined to sleep; could not speak or swallow. By this time she was seized with a convulsion; the convulsive action was not very marked in the lower extremities, but very noticeable in the face and upper extremities, with froth in her mouth. As soon as she rallied I gave her a hypodermic injection of whisky and morphine, as her pulse was only forty per minute. After the injection the pulse soon went up to fifty-two and remained at that for two hours, and in one hour more, by the constant use of whisky in small doses often repeated, was 72 beats per minute. Her pupils were dilated. (I will state that authors differ in regard to the pupils in tobacco poisoning. Taylor and Woodman, with others, hold that it is dilated in acute tobacco poisoning, while Pereira and Bartholow say it is contracted, but in chronic nicotinism is dilated. Now there is an acute tobacco poisoning in a chronic case, just as we may have an acute attack of Bright's disease coming on in the chronic.) But to return to the description of the symptoms present. She would sometimes complain of her head paining her, and then again say nothing hurt her. I was then called away, but returned again at 8 o'clock in the evening, and found her still delirious, pulse same, temperature 97½°, could move about more, vomited once, micturition frequent and more than usual. Could not see well; said she could not tell who I was, but seemed to know for a moment when told; also noticed facial twitching at this time. She gradually improved in every respect up to Saturday, when I saw her last. Rested well Saturday night, and doing well, so far as the family could tell, Sunday morning. She could not see well; voice weak; temperature never was elevated; pulse never over 80; no paralysis. After she was doing well as stated even on Sunday morning, I was surprised to hear, at 11 o'clock, she was dead, and on inquiring of her husband, he said about 8 o'clock she took some tobacco, and between 10 and 11 some more. She was quiet at this time, and he stepped out, but very soon he heard her give one scream, and he ran back, and she died a few minutes thereafter.

I told the husband on my first visit it was tobacco poisoning, but I had never seen a case of it before and was not positive. After I visited her a time or two, I stated to him that I was satisfied my diagnosis was correct. He did not, however, believe me, as he was a dear lover of the poisonous plant. In order that all parties might be satisfied, and that her husband might see that her stomach was not full of bile, as he supposed, and it was nothing but a bilious attack, as the doctors say, we sent for the coroner and had an autopsy. No external injury. An incision was made from zyphoid cartilage to the symphysis pubis, and another at right angles to this at free margin of ribs; peritoneum and intestines, liver, kidneys, and spleen normal in appearance, except kidneys somewhat congested. Stomach was opened, and it contained nothing but particles of tobacco; the mucous membrane of the stomach was covered with ecchymosed spots, but no other abnormal appearance. The last tobacco she took before her death she did not spit at all. I found on examination of the snuff-box, she had used about one-fourth of an ordinary ounce snuff-box.

Buttermilk in Sick Stomach.

Dr. R. J. Peare thus writes in the *Therapeutic Gazette*, April 15, 1885:

An irritable stomach, it will be admitted, is often a most serious complication in the management of sickness. In occasional cases, of no particular gravity otherwise, oftenest in diseases of children, this difficulty leads to a fatal issue. Buttermilk, so far as I am aware, is an untried remedy in such cases. I have had some experience recently with it, quite satisfactory in a few instances. Four cases of persistent vomiting occurring in succession, intolerant of any other treatment, gave way kindly to this.

Case 1 was that of a child about two years old. The vomiting was unaccompanied by other sickness. The child had not retained anything, fluid or solid, for two days; the food being almost immediately ejected. I suggested buttermilk in teaspoonful quantities, every ten, then every five, minutes, the milk to be quite cold and as fresh as possible. The vomiting did not recur, and in two days the child had changed from a condition of impending death from collapse, to nearly its normal condition. In place of teaspoonful quantities, the stomach soon sustained larger ones, and so on till an ordinary quantity could be taken.

Case 2 was that of a nursing child suffering from a mild derangement of the digestive process, accompanied by fever and persistent vomiting while anything remained in the stomach. The mother's milk was immediately rejected. I again ordered buttermilk, in the same manner as before, much to the surprise of the parents. Next day the father reported that there had been no vomiting from the time this treatment was commenced.

Case 3. This was an adult female. Three weeks before she had been confined, and at this time was suffering from a mild attack of peritonitis, with constipation and nervous troubles. There was constant nausea in this case, even when the stomach was empty—a feature in which it differed from the other three. Buttermilk was cooled with ice, and carefully given in gradually-increasing quantities till it was retained quite well, after other remedies had all failed, and in twelve hours it could be taken freely. The nausea was overcome with more difficulty in this case than in the others.

Case 4 was that of a child one year old and weaned. The mother had been away from home some distance with the child, visiting. While absent, a slight diarrhœa occurred, accompanied

by sick stomach. When I saw it the stomach difficulty predominated greatly. Everything given was immediately expelled with force. The mildest remedies were not retained a moment. The stomach was intensely sour, and food taken therein days before was passed from the bowels undigested. Buttermilk, as directed in the other cases, was ordered, with lime-water. The vomiting subsided very quickly, and the stomach could soon tolerate boiled milk thickened with flour. This change became necessary on account of the condition of the bowels, which now became as intolerant of the buttermilk as the stomach had been, the milk passing through immediately after ingestion. After the change of food no passage occurred for twenty-four hours.

Four successful cases will, of course, not establish the value of any remedy, but the recital of them may lead to further trial.

So far as I have observed, buttermilk does not coagulate in the stomach, as does new milk. This is, perhaps, its only advantage over the latter, but one of inestimable value, since the coagulation of new milk casein, so likely to occur, utterly forbids its use in many cases. In the "summer complaints" of children, for instance, buttermilk might be found eminently appropriate.

Valvular Disease of Heart—Rupture of Lung from Embolic Softening.

Dr. Wm. C. Glasgow reports this case in the *St. Louis Courier of Medicine*, March, 1885:

P. J., aged 40 years, was admitted into the hospital January 14. He had been feeling badly for about two years; the latter months he was unable to work, complaining greatly of dyspnœa, cough, and general weakness. There was general dropsy. His face was swollen and cyanotic. He suffered great dyspnœa on making the slightest exertion. His pulse was very rapid, feeble, and irregular. He had a troublesome cough, and expectorated freely a muco-purulent secretion. Bronchial rales were heard generally over the lungs. On examining the heart it was found generally enlarged, the apex pulsating beyond and below the nipple line; the impulse was feeble, with an undulating pulsation appreciable from the sternum to the apex; it was greatly increased in breadth. Above the apex a weak presystolic murmur could be heard, a diastolic murmur was heard over the aortic valves, and a systolic murmur over the tricuspids. Soon after entering the hospital, he was given a dose of purgative medicine, from the effect of which he was depressed and the dyspnœa was greatly increased. Under the use of digitalis and chloric ether, with stimulants, he improved steadily.

January 20 he began spitting freely dark blood; this ceased after having expectorated about a pint. Three days later he complained of an excruciating pain over the lower portion of the right lung, which yielded to cupping and poultices. On the morning of the 24th, he died suddenly in what the attendant called a faint.

The post-mortem showed the right pleural cavity filled with blood, the lungs intensely congested, and in the lower portion of the right lung a hemorrhagic infarction the size of a small orange was found, with an irregular rupture of the lung and pleural surface. The heart was enormously enlarged and filled with blood, weighing twenty-four ounces after the blood had been removed. The left ventricle was hypertrophied and dilated, the left auricle was greatly dilated; the right ventricle was enormously dilated, the cavity being three times the usual size.

The aortic valves were thickened and united by inflammatory adhesions, rendering the valves incompetent; at the base of the valves were several inflammatory nodules; the mitral valve was rendered incompetent by a shortening of the chordæ tendinæ from inflammatory thickening, and an enlargement of the orifice through dilatation of the ventricle. On the auricular surface at the base of the valve a row of rounded nodules projected into the orifice; the valve was large enough to admit the hand. The tricuspid valve was normal, but incompetent from distension of the ventricle. The liver and kidneys were engorged with blood.

The interesting features in this case are the embolic softening, and rupture of the lung, with hemorrhage into the pleural cavity. We note also the pathological changes producing a free mitral regurgitation without any evidence being given by physical signs; we note also the absence of a systolic murmur over the aorta, which should have been expected from the existing lesion. I believe that the large size of the mitral orifice prevented the formation of a regurgitant murmur, whilst the absence of an obstructive murmur at the aortic orifice may have been due to a feebleness, with a diminished supply of blood in the contracting ventricle. The large size of the heart is also unusual.

A Peculiar Form of Uric Acid Precipitate.

Dr. F. W. Ellis thus writes in the *Boston M. and S. Jour.*, April 23, 1885:

Several months ago I met with a case in my private practice which presented features sufficiently unusual and interesting to justify a few notes.

I was consulted by a large, well-built Irishman, who complained of various dyspeptic symptoms. His occupation was that of a stone-cutter. He complained of muscular weakness and poor appetite. He had been ailing for a considerable time, and had recently returned from a trip to Ireland, where he spent a year in idleness in order to regain his health. He returned home somewhat improved and resumed his trade. He was married, and so far as could be learned had always been temperate.

I was first consulted by his wife, who had noticed a peculiar condition of his water. The specimen of urine which she brought to me for examination was pale, and a half-litre or more in amount. The sp. gr. was low (about 1,010), but, as I have lost the record of the examination, I cannot state the exact figure. A relatively large amount of large rhombic uric acid crystals had collected as a sediment. It was this sediment of large red crystals which had first excited the attention of the patient's wife. After standing a short time a much more abundant chalky white sediment collected above the red uric acid. This white sediment was

insoluble in concentrated hydrochloric acid. A portion of the sediment boiled with a large amount of water slowly dissolved. Under the microscope it was seen to be composed of very minute rectangular prisms. That it was not any form of urate was shown by its insolubility in acids and its very imperfect solubility in boiling water. Treated with nitric acid and ammonia it gave a very beautiful murexid reaction. It dissolved readily in the caustic alkalies, and was reprecipitated by acetic acid in the form of perfectly colorless rhombic prisms, showing that it was entirely composed of an exceedingly pure form of uric acid. No more uric acid could be separated from the filtered urine. In other respects the urine was normal.

A sample of urine analyzed a few days later contained only a slight amount of uric acid. The increased excretion of the acid seemed to occur in paroxysms. I analyzed several later specimens, all showing enormous increase in the amount of uric-acid sediment, the greater part of which was the form of a white precipitate of small colorless crystals. The sp. gr. varied; on one occasion it was 1,023. The reaction was strongly acid.

The interesting points in the case are:

1. The enormous increase in the uric-acid sediment occurring in paroxysms.

2. The dual character of the uric-acid sediment, the large red, rhombic crystals, and the very minute colorless prisms.

The large red crystals were probably of slow formation; this was shown by their perfect rhombic form. The minute prismatic crystals must have been so suddenly precipitated as to leave no time for the absorption of coloring matter. The two kinds of crystals must have formed at two different times. The white sediment of pure uric acid might easily have been mistaken for one of urates had the examination been less careful.

I am not aware of a similar urinary sediment having been described in print, and it is doubtless one of some rarity. The patient had no symptoms of stone.

Poisoning with Castor Beans.

Dr. Hal. Foster thus writes in the *Kansas City Medical Index*, March, 1885:

The following caees may not prove altogether devoid of interest. With the object of adding my quota to the list of the serious accidents resulting from the indiscriminate use of castor beans, the impressive lesson which experience taught prompted me in presenting the histories of these cases.

October 11, 1884, early in the morning, I was hastily summoned to see two young ladies. On my arrival at the house, I found both patients occupying the same room and bed. The previous evening two young gentlemen called on the ladies. One of them had a large number of castor beans in his pocket. He made a wager that he could eat a larger number of the beans than either of the ladies. They at once began to eat beans; the men ate one or two. The girls, anxous to be successful, continued to eat until each had consumed 12 or 14 beans.

As the evening drew to a close, they retired, feeling as well as usual. About 1 a. m. they were awakened by severe abdominal pain, and intense thirst. This was about four hours after the beans had been taken. The countenance was pale, and resembled one in an attack of cholera. Their minds were in a semi-conscious state. Pulse 160, feeble and irregular. Heart's action labored. Pupils contracted. The skin was cold. There was great restlessness. The bowels began to act every few minutes; later on, the stools were very bloody. Each action seemed to cause excruciating pain, and was followed by great prostration. I realized that my patients were in a precarious condition, and unless I relieved them soon, death from collapse might ensue. I at once administered to each patient, cupri sulphatis, gr. x., and gr. xxx. of pulv. ipecac; also mustard and warm water. In a few minutes their stomachs were evacuated by severe emesis. Tr. opii was administered to quiet the severe pain. Hop applications were applied to the distended and painful abdomen.

The vomiting continued for several hours. The diarrhœa was so severe now, that it was thought best to give large doses of bismuth. Tr. digitalis in ten gtt. doses was given every three hours, until the afternoon. In a few hours my patients were resting quietly. Still there was great thirst and tympanites of the abdomen. In the evening the vomiting had subsided; hot milk and brandy was now given. Morphia sulphatis $\frac{1}{4}$ gr. was given to secure rest. On the morning of the 12th, patients were much better, but still very weak and pale. Tympanites was still present, and slight pain was experienced on percussion. The bowels moved several times during the day; bismuth still continued. Demulcent drinks were now ordered.

October 13th. Both expressed themselves as much better, but still weak, and had no desire to eat. Tympanites in iliac region all gone. Iron was now given in small doses. The improvement was rapid after the 13th.

A number of authors report deaths caused by eating castor beans. H. C. Wood, page 456, states that "the beans contain an acrid fixed principle, which makes them exceedingly poisonous." In 1874 Prof. Tuson discovered in the seeds a peculiar alkaloid, which he named ricinine or ricinia.

Professor Houzi reports a case of a middle-aged woman fatally poisoned by eating castor beans.

Maggots in the Nose.

Dr. D. C. Heely reports this case in the *Peoria Medical Monthly*, February, 1885:

Mrs. S., a married lady, aged about twenty-five years, of good habits, history of good health up to November 22, 1884.

November 22 she felt a slight itching sensation in the nose, about mid-way between the anterior and posterior nares, which was not considered worthy of attention. November 23 the husband called for a gargle, saying she had a slight sore throat. I sent her a mixture of chlor. potas., muriate of ammon., tr. of iron, and water, with instructions to gargle freely. November 24 the husband returned, saying the throat was no better, and that there was a bloody, watery discharge coming from the nose, and gave me two small worms which she had blown from the nose a short

time before he left home. I told him there was certainly something wrong there. He then asked me to go and see her. I found her in a darkened room full of offensive odor. I had her walk into another room, she being not at all debilitated, and proceeded to an examination. I observed at a glance the continual dripping of a bloody discharge from the left nostril. I introduced a bivalve ear speculum into the nostril, when to my horror I found a living mass of maggots working in innumerable holes through the septum around the antrum, orbit, and floor of the nostril, as far back as I could see, but as soon as I would introduce the speculum they would disappear from sight. I made a solution of carbolized water and turpentine, which I injected into the nostrils, when the worms would again become a living mass. I extracted at that visit one hundred and twenty-five of them through the speculum with a pair of forceps.

I returned in the evening, and by the same process extracted seventy-five more. I instructed the husband to use the injection of carbolized water and turpentine every three or four hours during the night as an antiseptic and disinfectant, and for her to blow her nose quite hard after each injection, which she did, and there were thirteen more worms in the wash-bowl next morning. November 25 I extracted thirty-five more, and found they had eaten a hole one and three-fourths of an inch in diameter through the soft palate into the mouth. In the evening I extracted thirty more, and so from day to day until November 29, the seventh day, when I had extracted in all three hundred and sixty-six large maggots, nearly all full-grown and over one-half inch in length.

The peculiarities of the case are, how the larva were deposited in her nose without her being sensitive of it, there being nearly four hundred worms and a fly will deposit about ten in a minute. There must have been nasal catarrh, and the fetor attracted the fly, as there is no necrosis.

There was no pain more than slight ear-ache and sore-throat from inflammation, from contiguity, no fever; no septic poison, in fact, perfectly composed the whole time. Result, January 29, 1885, a little over two months. the patient is in good health, the hole in the mouth perfectly healed, no signs of disease in the passages.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Few cases of catalepsy in childhood have been reported, and hence a case in a child three years old, reported by Dr. Jacobi, in a reprint sent us, is worth noting.

——Dr. Henry W. Stelwagon, of this city, has contributed a number of interesting studies on various forms of skin diseases to recent journals, reprints of which are before us. Two are upon impetigo contagiosa, its features and character; one on the treatment of acne indurata; others on herpes iris, psoriasis in a child, on pheithriasus palpebrarum, on acne rosacea, on a sebaceous cyst containing hairs, on an eruption from chlorate of potassium, on the oleates in cutaneous diseases, and on a case of feigned eruption.

——A very interesting reprint is before us from the pen of Dr. J. A. Irwin, of New York city, on "The Influence of Sea Voyaging Upon the Genito-Uterine Functions." The writer speaks from extensive personal observation, as well as a wide acquaintance with the literature of the subject. He examines the influence exerted on the menstrual function, its relations to sea-sickness, the influence on utero-gestation, on the production of abortion, etc.

——In an open letter to the President of the Provident Life and Trust Company, of this city, Dr. William Pepper gives some excellent advice as to the precautions proper in the event of the existence of cholera as an epidemic.

——Messrs. G. P. Putnam's Sons have issued an edition of Dr. Seguin's "Metric Prescription Book," which will be found very convenient for those preferring this method.

——Dr. Benjamin Lee, of this city, proposes to issue a number of short tracts on massage, priced at twenty-five cents each, some from the German, or other sources. The first of the series is translated, with notes, from the German of Reibmayr, and is upon the "Art of Massage." It is neatly printed, and quite instructive. It and future numbers of the series may be had by addressing Dr. Lee, 318 South Fifteenth street, Philadelphia.

——The subject of "The Galvano-Cautery in Nasal Surgery" is treated from the results of considerable original investigation in a recent pamphlet by Dr. Harrison Allen, of this city.

——Those who would like to know something about the climate of New Mexico and the Las Vegas Hot Springs, can obtain gratis a pamphlet on that subject by addressing Mr. Henry Farnum, 413 Walnut street, Philadelphia, mentioning this journal.

——In a careful article, the reprint of which is before us, Dr. P. A. Harris, of Paterson, N. J., treats of the management of mastitis by bandaging and rest. We give the gist of his recommendations in an extract:

Inflammation of the breast should be regarded as a progressive rather than a self-limited disease. It is attended by a train of pathological changes which become more severe and complicated until the conditions or circumstances which have pro-

duced them and which favor their continuance are removed.

The inflamed breast should be supported in a well-applied bandage, and no attempt made to nurse or withdraw the secretion until the entire subsidence of the inflammatory movement.

Sore and fissured nipples often produce inflammation of the breast. If, therefore, in any particular case we have reason to believe that the lesion will soon lead to the development of mastitis, or should it appear that a cure cannot be effected during the continuance of nursing, we shall be justified in the entire suspension of sucking through the affected part until a cure of the local trouble is established.

The well-applied bandage exerts a salutary influence on the morbid conditions which affect the nursing breast, and it is also the most grateful measure of treatment.

——A handy pocket volume for emergencies is the "Erste Nächstenhilfe bei Unglücksfallen im Frieden und Verwundungen im Kriege," by Dr. G. A. Ruhlemann, of Leipzig. It is well illustrated. Published by Carl Hockner, Leipzig.

BOOK NOTICES.

The Medical Aspects of Bournemouth and its Surroundings. By Horace Dobell, M. D., etc. 8vo., pp. 338. London: Smith, Elder & Co., 1885.

In this very complete and handsome volume Dr. Dobell introduces the reader to the advantages of Bournemouth, a health resort on the south coast of England. It has many inducements for those who suffer from affections of the air passages. The climate is mild at all seasons, and the neighborhood eminently picturesque and attractive. These natural beauties are well set forth in a number of excellent chromo-lithographs which adorn the volume. Altogether, it is one of the pleasantest books of the kind that we have seen for a long time.

Minor Surgical Gynecology: A Treatise on Uterine Diagnosis, and the Lesser Technicalities of Gynecological Practice. By Paul F. Mundé, M. D., etc. Second edition. Illustrated. 8vo., pp. 552. Wm. Wood & Co.

The first edition of this work appeared in 1880, and met with such an appreciative reception that the author has extended it very materially, adding much new matter and many illustrations, until now it is quite a portly volume. Its object is to set forth the minor surgery of gynecology, and this it does in minute and complete manner. About a fourth of the text is given to describing the methods of gynecological examination. To this follows three hundred pages on minor manipulations and applications, and the remainder is given to the lesser operations in gynecology. The only fault to be found with the book is its excessive minuteness and prolixity of detail. To some, however, these may be recommendations rather than blemishes.

Insomnia and Other Disorders of Sleep. By Henry M. Lyman, A. M., M. D., etc. 8vo., pp. 239. Price, cloth, $1.50. Chicago: W. T. Keener. 1885.

In this monograph the author treats in a learned and attractive style of the nature and causes of sleep; of wakefulness and the remedies for it, and its treatment in particular diseases; of the physiology of dreams and their various classes; of somnambulism and the general theory by which it may be explained; and lastly, of that form of artificial somnambulism which is known as hypnotism, or mesmerism. All these topics are treated of in a very instructive manner, and it has been long since we have read anything so satisfactory on those phenomena which have of late excited the attention of students of psychical mysteries, such as mind-reading, clairvoyance, memory in dreams, etc. Those who would like to acquaint themselves with what science has to say on these topics, and learn how they are regarded by the wisest students of this age, may turn with profit to the pages of this book. The author is well known, not only as a skilled physician and accomplished teacher, but as one of the most polished writers of the American medical press.

Neuralgia, and the Diseases that Resemble It. By Francis E. Anstie, M. D. 8vo., pp. 288. New York: G. P. Putnam's Sons, 1885.

Although the work of the late Dr. Anstie is no longer new, it would be difficult to name any that has appeared on the subject since he wrote which is superior to it. His style was remarkably pure, and as an observer he was unusually clear and sagacious. The distinction he draws between neuralgia proper and quite a number of painful maladies which simulate it is one of decided clinical importance.

In the first part of his essay, he speaks of the clinical history, complications, diagnosis, pathology, and treatment of neuralgia properly so called. In the second part he takes up such disorders as spinal irritation, myalgia, the pains of syphilis, alcoholism, and rheumatism, gout, colic, and headache, and gives the traits which serve to separate them from the suffering incident to neuralgia in the true sense of the word.

The book is in neat and convenient size, and will doubtless be an acceptable addition to the literature of the year.

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HYPNOTIC CHICAGO.

The profession in Chicago have had a curious experience. A well-known member of the Chicago Medical Society read before it a lecture on mesmerism, or "hypnotism," as the modern fashionable word is, and illustrated it with a living example. The members were profoundly impressed, and an interesting and learned discussion followed. But some one of them of an investigating turn of mind pursued the subject further, and discovered that the "able paper" was largely cribbed from an encyclopœdia, and that the subject was what they call in that enlightened metropolis a "horse," in other words, one who hires himself out to professional mesmerists for exhibitions. These "horses" must have a hard time. They submit to having pins thrust in their flesh, red pepper put in their eyes, without wincing, and pretend that they believe themselves to be George Washington or Daniel Webster at the wink of the mesmerist. It appears to be quite an avocation in Chicago, a city which is nothing if not progressive.

The result of it is that there is not a man left in Chicago who has faith in any variety of 'ism whatever, and no energetic young doctor out there cares aught for psychical research, but devotes his undivided attention to patients on the avenues, with an occasional dip into fall wheat and mess pork. To use one of their own expressions, it will be a cold day when the next mesmerist catches the Chicago profession napping.

THE PERILS OF GREATNESS.

A peril of greatness not mentioned by the old philosophers—as they lived before the days of telegraph—appears of late to be that the great man can never find out what is the matter with him when sick. We need but refer to the wonderful surgical diagnosis in the case of President Garfield—how the ball was exactly located by a novel instrument of precision, about ten inches from where it really was! We have fresh in mind—who has not?—the hourly bulletins about General Grant, not over a month ago. Every

time he gargled his throat his physicians summoned a consultation, telegraphed for a reporter, and had the fact (with their full names signed to the statement) instantly telegraphed over the country.

They did not stop short of either diagnosis or prognosis—"cancer of the throat," "death in a few hours or days at most." This, too, they sent out broadcast. It is a big thing for a small doctor to attend a great general and ex-President. It is a chance for getting patients in good society that must not be thrown away.

But there is not so much fun in it when the small doctors commit portentously-large blunders, and have themselves caricatured in *Puck*, and laughed at in the press generally. Their anxious efforts at notoriety then assume a ridiculous aspect, and their undue haste and the limitations of their knowledge become rather too apparent to be gratifying to them.

On a previous occasion we condemned as in bad professional taste, and indicative of a low order of ethics, this anxiety to seek notoriety by revealing the minute conditions of a patient, and hastening into print with facts and opinions that ought not to pass the doors of the consulting-room. General Grant's physicians have been disgustingly open-mouthed in these respects, and the exposure of the gross mistakes they have made will be as gratifying to others as it is deserved by themselves.

COMPLICATIONS OF GONORRHŒAL RHEUMATISM.

Occasionally peculiar symptoms have been described which have been met with in patients suffering from gonorrhœal rheumatism. Dr. Hermet records in the *Union Méd.*, 1885, 12, the case of a man, æt. 34, who had repeatedly suffered from this rheumatism, and who complained, the last time that he was seized with the affection, besides it, of intense pains in the ear at the slightest noise, tinnitus aurium and difficulty of hearing, especially when several persons were speaking together. The fact that these symptoms at once ceased the moment that a fresh joint became affected with the rheumatic disease, as also the observation, that when at that time air was blown into the tympanum, the ear symptoms immediately reappeared, induced Hermet to believe that the affection of the ear consisted in an arthritis of the joints of the ear-bones. It is exceedingly rare that several joints are simultaneously the seat of gonorrhœal rheumatism; generally, whenever a fresh joint is seized the pains in the one previously affected at once cease. For this reason it really does seem probable that the ear symptoms in H.'s case belonged to the same category.

SPECIFIC BACILLI IN SYPHILITIC TISSUES.

The characteristic bacilli of syphilis seem to have been at last discovered. Dr. S. Sustgarten (*Centrlbl. f. d. Med. Wissensch.*, 9, 1885,) has demonstrated in two cases of initial syphilitic sclerosis, and in one case of a gumma, the presence of bacilli, which by their reaction to a peculiar method of coloring, and by other properties, were proven to be a separate species, thus far not described. Koch and Weigert have confirmed the discovery. The bacilli greatly resemble in size and shape those of tubercle, but they are always met with either singly or in small groups, included in slightly swollen lymphoid cells. Under high power they showed the same light spots, which Koch believes to be spore-formations. Cocci were not present.

NOTES AND COMMENTS.

Ill-Shaped Noses and Other Irregularities of the Human Body not Morbid.

Dr. A. Convert thus writes to the *Atlanta Medical and Surgical Journal*, December, 1884:

As we walk the streets we meet many noses; some good comely noses, and some, though uncomely, subserve all of the purposes of their owner. Among this multitude of noses that look well enough to the passer-by, very few, upon close inspection, are set centrally on one's visage, or are of orthodox form, size and proportions. It might be a little hazardous, however philosophic our intentions, to investigate the nose of Tom, Dick, or Harry, as we meet those worthies on the

street; but within the metes and bounds of safe investigation it will be found that nine noses out of ten (my statistics are not exact) of said organs lean too much to the left, or the right, are too big or too little, too long or too short, too high or too low, too flat or too sharp, too thin or too thick; not to emphasize (for the dangers involved) their being too red, or too blue sometimes. Nevertheless, under all of these disabilities, the little organ serves the purpose of its owner with due fidelity in smelling, breathing, blowing and sneezing, as fully as if it had been chiseled by an artistic sculptor.

There are many other irregularities in the human body which, though equally abnormal, are not morbid. To say nothing about hands, feet, eyes, ears, or mouth, Madames Bouvain and La-Chapelle and others in their line, have given, or could give, numberless cases of the irregular development of the external and internal genitalia of their patients, without harmful results or the necessity of gynecological intervention, as evidenced by conception, gestation, parturition, taking their normal course with best results. There are irregularities of position and development and disease of certain organs that require the interposition of art; and it is pleasant to know that we have surgeons of our own, who are an honor to their calling and a blessing to the country, and who compare well with the best gynecologists of other lands. But it is not to be concealed that some well-meaning medical men seem forgetful of the resources of nature, and that no harm is intended by that divinity when she sports a little with a nose or a uterus, and that the uterus leaning a little to the right or left, front or rear, don't always require the interposition of art, any more than a bent nose does. Is it not best to stand back and not familiarize ourselves too much with other people's noses or uteri?—for the one might be dangerous, the other should be sacred. *Verbum sat.* * * * * * * *

But please allow a little more about intermeddling, as it is not drawn from imagination. Mrs. ———, young and healthy, had (her doctor said) uterine disease calling for surgical interference. Before such measures were taken, an appeal was made privately to an old conservative medical friend, who advised delay and gentle remedies. In due time she was happily delivered of a healthy child, which in less than two years had a successor. Another, Mrs. ———, could not menstruate as previously, and was in trouble about it. A doctor, with strong gynecological tendencies and aspirations, found the os uteri closed up and art called for. The husband says the doctor used "something like a glove-stretcher." A few hours brought forth an abortion, to the dismay of the doctor and distress of the patient. Miss A. has incipient tuberculosis and Miss B. has mental peculiarities; both of them just verging into womanhood. Manipulate their genitals, is the prescription!! Is there not a moral as well as physical evil, in thus outraging modesty by unnecessary and familiar interference with the female organs of generation? Few, it is believed, err so grossly. But does not fashion drift towards undue interference in this direction?

Arsenic in Cancer.

After referring to Dr. H. M. Lawson's recommendation of treating malignant disease with heroic doses of arsenic, Dr. J. McF. Gaston reports in the *Southern Medical Record* (April 20, 1885,) a case of encephaloid tumor situated below the right ear, where the pronounced cancerous cachexia and the return of the tumor after operation, seemed to verify the diagnosis of cancer. He prescribed five-drop doses of Fowler's arsenical solution three times a day, with instructions to add a drop every alternate day until he should reach ten drops of the solution three times a day.

After using the remedy in this form for nearly a month, he changed it for the arsenious acid in the dose of $\frac{1}{4}$ grain daily with a cup of hot coffee before his morning meal; and so soon as tolerance of this was apparent a second dose was given before dinner, and ultimately he took a third dose before supper. with indications of improvement in all respects. About the first of March the dose was increased to $\frac{1}{3}$ grain of arsenious acid three times a day, and continued for ten days, when he manifested signs of constitutional disturbance, with some puffing under the eyes and tenderness over the epigastrium, with evident modification in the character of the tumor. All the indications of a malignant growth having disappeared, and a marked diminution in its proportions being evident, while the raw surface had shrunk down to the level of the surrounding integument, there were still exuberant granulations, accompanied with a purulent discharge. Up to this time a simple aseptic local dressing of vaseline ℥j., with carbolic acid and camphor, each ℥j., had been applied with absorbent cotton; but then he prescribed vaseline ℥j., with chloride of zinc 30 grs., on a piece of cloth upon the raw surface daily. At this period, on the 10th of March, one-third of the arsenious acid was abstracted, leaving him to take $\frac{1}{3}$ grain before his breakfast and a like

quantity before supper. At the expiration of another ten days he was ordered to stop the evening portion, and has since continued taking only one-third of a grain before breakfast. The acceleration of the pulse, with the slight signs of bloating about the face, have disappeared under this reduction of the daily dose; and his appetite, which had become somewhat impaired, is now being restored, while the tenderness and distension of the epigastrium gives no further inconvenience.

The exuberant granulations having been repressed by the local application of the chloride of zinc, it has been discontinued, and a simple plaster of basilicon ointment on a cloth covers the granulating surface. It appears not only to Dr. G., but to various colleagues who have observed the progress of this case under the arsenical course, that while a specific taint remained in his system there was a tolerance of the arsenic, but as soon as there was a marked change in the general and local indications of disease for the better, the peculiar effects of this agent become more developed. The improvement up to the date of the report has been so great that Dr. G. promises further reports of the case.

Mediate Transfer of an Ulcus Molle.

How careful physicians ought to be in the use of instruments which have been previously employed in cases of chancre, the following interesting case will show, reported by Dr. Edm. Lesser, in the *Viertelz. f. Dermatol.*, etc., 1885, p. 210.

Under perfect aseptic precautions, L. had extirpated a small piece of the skin of the left forearm in a 15 year old girl, suffering from lupus vulgaris. His object was a microscopical examination. The wound, about 1½ inches long, was closed by three catgut sutures, and soon healed, with the exception of a small granulating place in the centre. This part was slightly covered with iodoform, kept in a glass, and applied with a small camel's hair brush, which had been employed on the previous day in a patient affected with a soft chancre, still covered by a thin purulent layer, and with a bubo, into which an incision had been made. Within a few days a typical chancre developed itself in the wound of the girl's arm, and healed on the eighteenth day. L. mentions the fact that the syphilitic patient had himself made the application of the iodoform with the camel's hair brush, and he is of the opinion that some of the pus probably adhered to the hair.

Besides the caution which this case teaches us, it proves another fact reported by other observers, viz., that the purulent discharge of the soft chancre by no means loses its virulence by drying. It is not improbable that the peculiar purulent conjunctivitis which we at times observe in patients suffering from soft chancre, though not constitutionally affected, may be ascribed to the same cause. Such patients are not always careful, and allow their fingers to come in contact with the purulent ulcer, forgetting that though the quantity of pus adhering to their finger may be very small and completely dried up, an infection may take place through it.

Turpentine in Skin Diseases.

The internal administration of this drug in skin diseases has not been very often recommended, hence it is well that we should know that Dr. H. Radcliffe Crocker (*Practitioner*, March, 1885,) considers that in the turpentines we have remedies that, while not "perfect cures," yet reduce the hyperæmia and place the patient so far on the way to recovery that a short supplementary local treatment easily removes the remains of the lesion.

He has used it in psoriasis, and in eczema. The dose of the oil is from fifteen to thirty minims in emulsion of acacia thrice daily.

For eczema, he restricts its use to those cases in which no defect in the general health can be detected—a small proportion of cases undoubtedly compared to psoriasis, which Hebra called "a disease of the healthy"—but it is just these uncomplicated cases that puzzle us as to what line of treatment is most likely to prove successful, and he thinks turpentine will help us out of the difficulty. With regard to other diseases of the skin, the evidence he can offer at present is only fragmentary, but that is favorable so far as it goes. In a case of pityriasis rubra, Chian turpentine was given in five, increasing to fifteen grain doses, three times a day, and the skin distinctly improved; but the patient, as so often happens in these cases, became so adynamic, not from the drug, but from the natural course of the disease, that other treatment had to be resorted to. Turpentine is a well-known remedy for purpura, but he has no new facts to offer on this point.

The cases in which turpentine is contra-indicated are, in his opinion, the following: children under five years old; all who have unsound kidneys, or irritable bladders; most cases in which dyspepsia is present, though in some instances it can be tolerated even then; and gouty subjects, whose powers of elimination are seldom good.

A Local Anæsthetic.

Equal parts of chloral and camphor were recommended years ago by Dr. Fordyce Barker to stop the secretion of milk, and now we note from the *Canada Med. and Surg. Jour.*, March, 1885, that before the Medico-Chirurgical Society of Montreal Dr. Lapthorn Smith read a paper on the use of a mixture of about equal parts of chloral hydrate and camphor as a local anæsthetic. He stated that when placed in the solid form together in a bottle they soon produced a clear, thick liquid, which, when applied on a piece of lint, covered with oil-silk, to a painful surface, complete analgesia resulted. He reported three cases in which he tried it with good success. The first was a whitlow of the finger, which the patient refused to have opened. Shortly after applying it the pain disappeared, and three days later it was lanced and the pus let out without the patient, a young lady, experiencing any pain whatever. The second case was a very painful bubo, which completely disabled the patient, a gentleman, from doing his work. The mixture of chloral hydrate and camphor was applied frequently on a piece of lint, with the result that a few hours after the first application he was so much relieved that he returned to his duties next day, and fluctuation becoming evident a few days later, it was opened, the operation causing only about a quarter of the usual amount of pain. The third case was an operation for the removal of a large sebaceous cyst of the face, which was removed after the frequent application of the local anæsthetic for several hours previously by means of a brush. The incision in the skin was almost painless, but it produced no effect upon the deeper structures, to which the cyst was firmly adherent. The action of the anæsthetic is much less marked on healthy than on inflamed and painful skin.

The Chloroform Habit.

Apropos of this habit, which seems to be on the increase in this country, we note the conclusion of an article on the subject by Dr. A. G. Browning in the *Med. Record*, April 25. He says: "The man maudlin drunk on the meanest whisky, however revolting, is a prince compared with such! For he *was* jolly once; the chloroform drunkard never!

"But it goes further: the process is one of thorough emasculation—death, with geometrical precision, to every function; somatic death, with no incidental solemnities, and but a shadow for final sepulture. Every physiological process, without exception, goes down in the wreck. So surely is this so, that were I commissioned to destroy my kind—to sap their morals, dwarf their intellects, wither their physique, and estop reproduction, the habitual use of chloroform, as I have known it practiced, would leave nothing to be desired.

"I know whereof I speak; do not overdraw, nor can I think my experience wholly exceptional upon a more general comparison of notes.

"In this rambling communication I have aimed at nothing but a narration of facts—no attempt at theory or speculation. I will add here that in nearly every instance the chloroform habit has seemed to replace the appetite for drink. I mean that the craze for chloroform has developed, in nearly every case, in individuals who, though strictly temperate themselves, come of a line of drinkers more or less remote. Is this a matter of hereditary descent?—another evidence that the 'sins of the father are visited upon the children, even to the third and fourth generation?' Temperance reformers may make a note."

The Determination of Albumen in Urine.

Dr. Henry B. Millard contributes an article on this subject to the *Med. Record*, April 4, 1885, which thus concludes:

My experiments with all the substances I have used, and various reagents I have not here referred to, have numbered many thousands. My conclusions, as result of these experiments, are: That nitric acid shows 1 part of albumen in 100,000. Heat shows 1 part in 100,000, but rather more clearly than nitric acid, and in examinations of urine I often find it to show minute quantities of albumen where nitric acid does not. Tanret's test and my own test will show 1 part in 300,000; the latter test the more clearly; this precipitates fewer of the alkaloids than Tanret's.

Nitric acid and heat show almost exactly the same reaction and percentage with artificial albumen and albuminous urine. Tanret's test and my own show the reaction better in the urine than in the artificial preparation. I think, for practical purposes and ordinary clinical use, we may show with ease, by nitric acid, 1 part in 100,000; heat, 1 part in 100,000; Tanret's test, 1 part in 200,000; the phenic-acetic and potash test, 1 part in 200,000; heat showing it more clearly than nitric acid, consequently being more sensitive, and my own test showing it more clearly than Tanret's.

Heat, although somewhat more sensitive than

nitric acid, is often quite unreliable from the turbidity produced by it with mucin, and this particularly after acetic acid has been added.

Finally, there are cases in which no single reagent is sufficient, and in which, in order to determine the presence of albumen, the employment of several is indispensable.

An Inventor Protected.

It gives us much satisfaction to note that in the case of Dr. Carl L. Jensen against the firm of Keasbey & Mattison, of this city, for their alleged infringement of his patented methods of manufacturing crystalized pepsin, the Circuit Court of the United States rendered a decision protecting Dr. Jensen in his rights, and putting a stop to the manufacture or sale of his product by the firm named. Not only is this law, but we are convinced that it is justice as well. A scientific man, who, through later years, has developed a process for the production of a chemical, and then gives the process publicity through the means provided in the patent laws, should certainly reap the returns of his toil and knowledge for the limited time provided by the laws. It argues a low morality in the man or firm who would try to despoil him of this legitimate fruit of his labors and knowledge.

The Court said: "That the plaintiff's patented product, 'peptone pepsin,' is of great utility and patentable, is undoubted. The infringement is conclusively proved. The defense, that for more than two years prior to the patentee's application, this article had been exposed to sale, and second, that it had been described in certain publications, is not sustained by proof. No such article is shown to have been on sale, and no such process as employed by the plaintiff, or article manufactured by him, is shown to have been thus described.

"Pepsin had been manufactured and sold for many years, but no 'peptone pepsin,' such as this patent describes. The publications relied upon show nothing more than suggestions and speculations of scientific writers, who had never tested the practicability of their suggestions, or demonstrated the truth or value of their speculations."

Essential Oil of Camphor in Rheumatism.

The *London Med. Press*, March 11, 1885, tells us that this oil, which is now making its way into European practice, is obtained as a by-product in the process for obtaining camphor from the wood of *laurus camphora*, and has for centuries enjoyed the highest reputation among the Chinese and Japanese as a remedy in muscular and articular rheumatism. In the process of distilling the camphor wood, the oil and camphor are carried over together into a receiving trough and separated by draining.

This oil has been examined by R. H. Oishi, and the results of his investigation show that it consists of a saturated solution of camphor in a complex mixture of terpenes of the hydrocarbon series and oxyhydrocarbons isomeric with camphor and other aromatic bodies. Upon submitting the oil to fractional distillation that portion obtained between 180° to 185° C. was found to give figures coinciding with the formula $C_{15}H_{16}O$, and another fraction between 178°–180° C., after three distillations, upon combustion gave figures equivalent to $C_{12}H_{20}$.

In addition to combining the properties of turpentine and camphor, it possesses the advantage of being far more cleanly than the fatty solutions of camphor which have hitherto been in vogue in this country, while its low price places it within easy reach for experimental purposes. The oil is very mobile, of a dark brown color, and has a strong, but pleasant odor, between that of sassafras and camphor.

A Case of Trichinosis.

Dr. C. F. Damall, of Walnut, Iowa, writes to the *Med. Record* that he was called to see a German woman, supposed to be suffering from chronic rheumatism. She was in a typhoid condition—morning temperature, 102.5°, evening 105°; pulse 140; respiration 36 to 40. There was puffiness of the face, dysphagia, dyspnœa, hoarseness, flabbiness of the muscles, pain on voluntary motion, and excessive and constant perspiration. The tongue looked like a piece of raw beef; the spleen was enlarged and painful; there was obstinate constipation, some tympanites, but no other signs of gastro-enteric irritation. The patient suffered from constant thirst, there was no appetite, and scarcely any sleep could be obtained. A diagnosis of trichinosis was made, and was confirmed after the patient's death, which occurred four days later. The woman had eaten no raw pork since coming to this country, in November, but had done so before leaving Schleswig-Holstein, in October. Immediately after eating the pork at this time, she was taken with vomiting and diarrhœa, and was sick for about a week. After that pains were felt in the flexor muscles, and in the back and neck, but only when at-

tempts at voluntary movements of the limbs were made.

Filth and Yellow Fever.

Dr. S. S. Herrick (an authority on the subject) contributes to the *New Orleans Med. and Surg. Jour.* (February, 1885,) an article on this subject, which thus concludes: "The classing of yellow fever among the filth diseases, along with cholera, epidemic dysentery, enteric fever, and diphtheria, is dangerous in directing preventive measures entirely or chiefly to filth, with disregard of apartments and fomites. The infection is more likely to survive in neglected houses than among unheeded rubbish and filth exposed to the weather outside. Narrow ideas and one-sided views are as mischievous in sanitation as in any other important business. With yellow fever, cleansing and disinfection are indispensable; but let it not be forgotten that it was certainly once foreign to these shores, and that it may again be imported without the instrumentality of filth."

Cocaine Hydrochlorate in Otalgia Due to Catarrhal Inflammation of the Ear.

In the *Therapeutic Gazette*, Dr. Henry Reder tells us that after treating a case of severe otalgia with all ordinary remedies, including the hot-water douches, leeches to the tongue, and paracentesis of the membrana tympani, without much relief, he thought of cocaine hydrochlorate. He inserted into the vial of the atomizing tube of a Codman & Shurtleff steam atomizer a four per cent. solution, and advised the patient to fill her mouth with the spray, close her lips, expand her cheeks, and so force the vapor into the eustachian tubes; this was repeated at intervals of three minutes. He then adjusted the nasal tube of the atomizer, inserted it into the external auditory meatus, and also sprayed the external canal at intervals of three minutes. After fifteen minutes from the last application the patient was wholly relieved, and passed a comfortable night.

Carbonate of Ammonia in Scarlet Fever.

Dr. A. W. Jackson, of Brooklyn, writes to the *Med. Record* (March 21), calling attention to the treatment of scarlatina first brought prominently into notice by Dr. Peart, of England. This consists in the administration of from three to seven grains of carbonate of ammonia every hour for the first day, and then at longer intervals. Purgatives are to be avoided during the early stages of the disease. The writer states that he has had occasion to test this mode of treatment, and can endorse it heartily. In addition he employs the fluid extract of eucalyptus internally and as a gargle. When there is much exudation, a mixture of carbolic acid and iodine in glycerine is painted over the parts. In too rapid recession of the rash, Dr. Jackson applies cloths dipped in thick mustard water, or wraps the child in blankets wrung out in hot water.

Beer in the Vomiting of Pregnancy.

From the *London Med. Record* we learn that Dr. O. Rodewicz, of Orenburg, describes two severe cases of vomiting of pregnancy, where the patients in the third and fourth month vomited almost hourly, and sickness completely disappeared from the next day after the patients had commenced to drink beer.

The successful cases communicated by Dr. Rodewicz induced Dr. P. Polansky, of Nijni-Novgorod, to try beer, a glass at dinner and supper, in the case of a primipara aged 25, in early period of pregnancy, with eight to ten daily attacks of vomiting. On the first day of the treatment the patient vomited only once, after which the sickness disappeared and did not return, although the treatment was continued for only four days.

The Treatment of Chronic Hydrocephalus.

As we might expect, Dr. F. Forcheimer tells us in the *Jour. Am. Med. Ass.* (March 14, 1885), that the treatment must be symptomatic. In cases where there is much irritability, he gives opium enough to allay it. When this irritable state has disappeared, if it does disappear, he gives internally iodide of potassium, regulates the bowels, and of course tries to remove the cause. If the disease is due to uræmia, or if, in the course of a case of uræmia that you are treating, symptoms of hydrocephalus supervene, you must treat the case accordingly. He has not much faith in puncturing these cases, although it sometimes seems to give relief. He has no faith, either, in compression, for he has seen no good results from it.

CORRESPONDENCE.

Review of a Case of Cerebro-spinal Meningitis (so-called).

EDS. MED. AND SURG. REPORTER:—

That eminent physician, the author of "In War Time," in a fatherly talk to his younger brethren a short time ago, told them the report of a single case of disease was of little consequence, and advised them to take careful notes of

many cases, so as to be able to present valuable statistics. Excellent advice; but I have so often been so much benefited by well-narrated single cases, that I feel that they are often of great value to the practitioner. Allow me to mention one. Soon after I began practice, Jesse Young, M. D., of Chester county, published a case of rapid bloody infiltration of the labia, which occurred during labor, and the immediate relief given by making a long and deep incision of it. Soon after, a case occurrred while I was attending a case of labor; a slash with a plunging lancet, according to his direction, did the work in a moment. I have, in many, many cases, had great benefit in emergencies from the recorded experiences of others. They were lights to guide me. The case I review is of a different kind. It is one, indeed, of little use, save as a warning against such practice.

In the MEDICAL AND SURGICAL REPORTER, June 7, 1884, is copied from the *Brit. Med. Jour.* of April 12, 1884, "A Rapid Case of Acute Cerebro-spinal Meningitis," reported by Dr. Albert Wilson. I was specially attracted towards this case, because about three months before it was published in the REPORTER, I had a case somewhat like it, though more violent in the beginning, which at first I scarcely knew how to treat, but which was finally guided to recovery. Then, when after a few months I saw this case reported, I read it carefully, and, on finishing it, wondered why Dr. Wilson published it. If it had gotten well under his steady and increasing doses of a not entirely harmless medicine, or if he had made an examination after death and had proved conclusively that his patient died from *that disease* alone —not hastened, even, by the medicine—I could have seen some use for the publication. Here is the case:

"Mr. A., aged eighteen, was in good health on February 21, 1884. On 22d, had headache in forehead and posteriorly, loss of appetite, pain in stomach, and constipation. At night, vomited green fluid, and was restless. This was the first stage"—certainly not very violent.

"At 5 a. m., 23d, he moaned, tossed in bed, and was unable to speak. At 6 a. m. Dr. Wilson found him semi-conscious, very pale, throwing his arms and legs about, and rubbing his stomach; his eyes half open, but watchful of Dr. W.'s movements; always pushed his hand away when he touched him; if offered food or drink, would knock the spoon or cup away; pulse 72; too restless for thermometer to be used. Ordered bromide ammonium, twenty grains, and ten grains of chloral every two hours. 11 a. m. Condition the same. No rigidity of muscles; resisted being fed or given medicine; moaned constantly; disliked the doctor, and was worse when his relations were present. At 10 p. m. he had had four doses of bromide (80 grs.) and chloral (40 grs.), and two thirty-grain doses of bromide ammonium, making in all 140 grains bromide ammonium and 40 grains chloral, *without any soothing effect* (italics mine). Pulse, 72; skin, cool. Restlessness and moaning had increased. This ended the second or apyretic stage."

Thus far I have abridged the case; the next I will give in full.

"February 24, 11 a. m., the third stage began. Muscular excitement diminishing. Thumb opposed, and the hand flexed over it; the head and neck were forcibly retracted. There was no purposive resistance, although he had great difficulty in swallowing, and was very restless. Pulse 100, skin hot and dry, pupils contracted, conjunctiva injected, comatose, moaning constantly. Large quantities of urine passed involuntarily. At 4 p. m. consulted with Dr. Hulings Jackson. There was much less muscular resistance, and he swallowed quietly. Opisthotonos increased, pulse 120, temperature in axilla 103°. Optic discs normal; tendon reflex normal. Bromide was continued in 30-gr. doses, with addition of 10 grains of iodide of ammonium. At 10 p. m. coma was deeper, head more retracted: he was almost unable to swallow, but since 4 p. m. had had two doses of his medicine. Temperature 104°, pulse 120. Died at 8 a. m. on 25th."

Such is the history of the case. What shall I say of it that will be useful to the thousands of practitioners who take the REPORTER? Is it sufficient for us that we read a case like this, and then, without further thought about it, pass to something else? Does the publication of such a case do good? or, if it do no good, is it harmless? Let me answer the last question first. It does harm—great harm. Many readers—oh! how many—seeing the heading and desirous to see what the treatment of such a case is in England, look over it while comfortably seated in an easy chair in the office, and notice that bro. am. was relied on almost exclusively; that towards the last, even when the patient was dying, Dr. Hughlings Jackson, an eminent physician, sanctioned Dr. Wilson's bromide am. treatment—advised the exhibition of his doses every two hours, with the addition of 10 grains of iodide ammonium. Your readers take note of this. They had not known before that it was a remedy so strongly confided in in London; and though the patient died they resolve to try *this* on the next case of brain disease that they have. When they meet in county societies, and cerebral disease of any kind is the subject, it will be mentioned that "bromide of am. in large doses, persistently used day after day, is a remedy much relied on by the profession in London; that Dr. Hughlings Jackson and other eminent men have unbounded confidence in the bromides." So, after that, in all affections above the ears, they are ready with the great remedy. How the medicine acts, how it controls an inflammation, what proof has ever been given of its value, are not matters for consideration. "Drs. Wilson and Hughlings Jackson use it." That is sufficient. That is the way in which it is harmful. The answer to the first query is now plain. We should analyze such a case. We should show the absurdity of such treatment, let the authors of it be whom they may.

The symptoms were mild during the first day, and no medicine was given. On the next day he was not so well, and Dr. W. was called; during that day he gave 120 grs. br. am. and 40 grs. chloral. But he steadily grew worse, though even then the pulse was 72, skin cool, respiration regular. On the morning of the next day, the second of Dr. Wilson's attendance, he entered the third stage, and from the fact that Dr. Jackson, at 4 p. m., "advised the 30-gr. dosesto

be continued,'' we are justified in inferring that they had been given steadily from the day before at 10 p. m., when the amount named above had been given. If so, then he had taken through the night after 10 p. m., and the folllowing day until 4 p. m., when Dr. Jackson was called, 240 grs. bro. amm., to say nothing of chloral. Then the two doctors—London doctors, not country doctors in the wilds of America—continued the 30-gr. doses, and for a reason which they have not given us, added iodide of ammonium in 10-grain doses—added to the bro. Of that the poor fellow, who must have been a tough subject to stand such attacks, got two doses and could take no more: he died early next morning—just two days after he began to take that excellent remedy, under the use of which here in our State a number of women suffering from puerperal convulsions were allowed to die, who might readily have been saved as we now all know. To return to the bromide case, we find that he was given 420 grs. bromide am., 40 grains chloral, and 20 grs. iodide am., within 48 hours—no, 36 hours; for he could take no more at 4 p. m. of the second day of Dr. W.'s attendance.

Now, is that kind of treatment to be followed by us, simply because it comes from "abroad?'' What could have induced Dr. W. to persist in the use of a remedy which after large doses, to use his own words, "produced no soothing effect?'' Let us now inquire about the medical value of this medicine. The disease was an inflammation hidden deep in the skull. Even the favorite poultices deemed so valuable, and which are so much used in cases of pneumonia which prove fatal in a day or two, would have but small control over this inflammation, seated under the bony cranium, and in the spinal canal. I am away again from my subject. Has any one ever given proof that bro. am. is efficient in allaying acute inflammations, anywhere in the system? Have there been such positive testimonies of its value in subduing inflammation as to warrant a persistence in its use, in the case narrated, by two of London's eminent physicians, to the exclusion of all other means? Is it not amazing? Was it not unjustifiable that, when under its use the patient grew worse every hour, no other means were used?

I am not very well informed of the effect produced—the injurious effect, I mean—by such large and oft-repeated doses of any of the bromides; but as I occasionally see reports of poisoning by bromides, the bromide can scarcely be a harmless remedy in large and repeated doses. I ask your readers if they would be willing to risk taking so much in 36 hours. I have yet to learn that it is a medicine valuable to allay acute inflammations. It has been productive of great harm, taking the place, as it has often done, of valuable remedies. It was my intention to review this case and report my own—one that I treated three months before this one was reported here—in a single article; but this has grown to such length that mine must be deferred.

Conshohocken, Pa. HIRAM CORSON, M. D.

—Why is chloroform like Mendelssohn? Because it is the greatest of modern composers.

The Debauchee's Fear of Death.

EDS. MED. AND SURG. REPORTER :—

Those who are at all familiar with the physical effects of alcohol, have often observed that in many cases those who go on what is commonly called *a spree*, and keep it up for two or three weeks, frequently manifest a pitiable fear of immediate death, and beseechingly declare that they must have alcoholic drink or they will die at once, and show by every expression of their bodies a sincerity in this manifestation, and that they are really suffering from the most intense feeling of the fear of impending dissolution. They will place their unsteady hands over their fluttering hearts, heave the most agonizing sighs, and imploringly reiterate, in the most agitated and restless manner, that they will not live an hour if they cannot get another drink. This condition of the nervous system affords the best possible example of a case of abject fear of death, and arises from the poisonous effect of alcohol upon the action of the heart. These symptoms do not usually begin before the end of the second week of a spree, and differ from those of delirium tremens.

The debauchee commences by drinking on an average fifteen or twenty glasses of beer a day, and in order to produce sleep he usually finishes his day's drinking by swallowing a half-pint of whisky at bedtime. At the end of ten or fourteen days of such drinking, feelings or symptoms of great nervousness begin to be shown. He loses his appetite, and vomits once or twice in the morning, after his night of distressed and partial sleep, and he becomes very weak and nervous; and an overpowering fear of dying fills his mind with its horrible apprehensions. His heart's action is throbbing and intermittent, and his pulse is small, weak, and irregular.

He becomes pitiable in his entreaties for more whisky, and distressing in his exclamations that he will be dead in a few hours if he cannot be relieved. He takes more whisky, but it scarcely reaches his stomach before it is thrown off again; and at the expiration of twelve hours his suffering and all his symptoms are greatly increased. Nervous trembling sets in. The pulse grows more feeble and intermittent, and the heart more irregular in its action, accompanied by a great augmentation of the fear of death; and becoming still more apprehensive of immediate death, he usually sends importunate messages to his friends to come at once to see him die, or to save him from dying.

When in this condition, the self-afflicted debauchee will, with avidity, take anything, or do anything, to relieve himself of the torturing nervousness that has taken possession of his whole system. The heart sometimes stops its agitated and overworked motion, and death suddenly ensues from heart failure; but occasionally life is ended by an overdose of some narcotic mixture which the debauchee takes to relieve extreme nervousness, and to assuage the irrepressible fear of dying. This variety of alcoholic poisoning is most often seen in the class of periodic drinkers, who have time and money in abundance to afford a full and unrestrained gratification of the appe-

tite for alcohol; and many a debauchee has died while on a spree, from heart-failure thus produced.

L. B. Johnson, M. D.

Washington City, D. C.

News and Miscellany.

American Medical Association.

(*Concluded from page* 602.)

Dr. J. A. White, of Richmond, read the address in the section of "Ophthalmology, Otology, and Laryngology," which was followed by the address in the section on "Diseases of Children," by Dr. J. H. Pope, of Texas. He said that there have been no special advances in the department which he represented, unless it be in the improvements in certain methods of treatment, and in remedies. A good many so-called specific remedies have been introduced, and their value cannot be determined at so recent a date. Among other advances has been the use of disinfectants. Notably among these is the bichloride of mercury. Dr. J. Lewis Smith, of New York, has called especial attention to his results from its use in diphtheria. Some of the cases which he has reported are remarkable. In some of them tracheotomy appeared almost unavoidable, but by the persistent use of bichloride of mercury the dangerous symptoms were averted.

As regards the pathology and etiology of children's diseases, there cannot be said to have been any advance. He, however, stated that in his experience a new view of the causation of rickets could be advanced. He had observed that it occurred more frequently in children who were nourished at the breast until long after the proper time for weaning than in any other class. Too long nursing then was one of the most frequent causes of the affection.

Dr. Quinby, of Jersey City, chairman of the committee, reported the following proposed amendment to the by-laws: "That a new section of medicine entitled 'Medical Jurisprudence' be established by the Association." Laid over until next year.

Dr. Toner, of Washington, chairman, reported that the Committee on Necrology had from time to time reported to the journal, thus obviating the necessity of making an extended report to the Association.

AMENDMENTS TO THE BY-LAWS PROPOSED LAST YEAR.

On motion by Dr. Eugene Smith, of Detroit, the amendment proposed by Dr. Carl Seiler, to divide the section in Ophthalmology and create a section in Laryngology, was taken from the table, and after some discussion, was postponed indefinitely.

The amendment proposed by Dr. von Klein, of Dayton, Ohio, with reference to *a higher grade of medical education*, was, on motion by Dr. Toner, in the absence of the proposer, laid upon the table.

The following resolution, offered last year by Dr. Cochran, of Alabama, and which he wished to have construed as a proposed amendment to the by-laws, gave rise to a brisk discussion, and finally, on motion by Dr. Murphy, of St. Paul, was laid upon the table.

"*Resolved*, That it is the sense of this Association that it is not expedient for the Nominating Committee to nominate any of its own members for any of the offices of the Association."

A vote of thanks was tendered by the Association to the entire profession of New Orleans, and particularly to the Committee of Arrangements, who have by their attention and kindness enabled the members to enjoy so thoroughly this meeting of the Association. Also, to Dr. and Mrs. T. G. Richardson, Mr. and Mrs. Cartwright Eustis, and the New Louisiana Jockey Club, all of whom have added greatly, by their hospitality, to the enjoyment of the Association.

Dr. M. H. Henry was announced as a delegate to the British Medical Association, and it was further resolved that other members desiring to become delegates could be elected by the vote of the president and permanent secretary.

The President-elect, Dr. Brodie, was then introduced, and accepted the trust in a few words of appreciation of the favor.

The retiring President, Dr. Campbell, thanked the Association for their consideration and assistance during the session just ended.

The meeting then adjourned.

Avoidable Illness.

The *London Lancet* very truly says that if men were to reflect upon the amount of illness, not to mention other evils, which they bring upon themselves, a total which ever increases with their self-development in civilization, they would sometimes question the reality of a progress which includes so many errors. Even if we leave out of sight the known results of faulty practice, there is still a large margin of what seem to be anomalous mishaps, which day by day are shown to have had an acquired and avoidable beginning. It is always satisfactory to get at the root of these unaccountable flaws, especially when they nearly concern one's personal health. Their removal is then usually assured, and our former discomfort or dread is covered with the satisfaction of enlightenment and of remedial success. Trade-work has at all times illustrated, and does still continually illustrate, the truth of these remarks. Let us grant all that is due to its energy and enterprise, and still the value of its productions is heavily discounted by errors which are not only due to oversight or ignorance, but often to neglect. In so far every one will admit the need of correction. By way of example, consider the case of staining and its applications. We showed a short time ago that some of the aniline dyes in the market, from whatever reason, were found to possess poisonous properties, and to be unfit for dyeing articles of dress. Further evidence has not been wanting to confirm those observations. Another and older enemy of health, arsenic, has never been extirpated, but shows its front among us from time to time. Cases of poisoning by arsenical wall-papers have been reported quite recently. The symptoms described, it is true, did not include the gravest possibilities, but chronic and intermittent ill-health was proved to depend upon the presence of a highly-colored paper con-

taining much arsenic. Mere color, we would add, however, is no test of quality in this respect. The most innocent-looking hues may be arsenical, and, conversely, the same tints may be had without any such poisonous mixture. Undoubtedly, the only guarantee for safety is to be found in the discontinuance of this or other similarly hurtful substances as dyes in dwelling houses. While there is any doubt about the matter, no custom in decoration can be safer or better than that of distempering walls, and afterwards oil-painting them with some plain color.

Swallowing Artificial Teeth.

From the Vienna correspondence of the *Lancet*, we learn that two cases of the above nature have lately been treated in the wards of Prof. Billroth. A woman, living near Vienna, swallowed during the night of January 28th an artificial set of teeth, which she omitted to remove from her mouth before retiring to rest. All endeavors to extract the plate from the œsophagus, where it lodged, failed until she came under the care of Prof. Billroth, who removed the foreign body by œsophagotomy. Symptoms of commencing gangrene of the œsophagus appeared, and a fatal result was feared. A part of the operation wound had been left open for the insertion of a drainage-tube as far as the stomach, and the entire wound covered with iodoform gauze. After a lapse of eight days the drainage-tube was removed, and in another week the wound had closed. The patient is now (March 19) perfectly well; stricture did not occur. The second case was that of a girl aged nineteen, who swallowed a set of teeth during the night of February 14th. All endeavors to extract the plate were vain. On admission to hospital the foreign body could distinctly be felt in the œsophagus. On the following morning the largest sound could easily be introduced, and Professor Billroth decided to perform gastrotomy about three centimetres below the edge of the ribs on the left side. Through an incision in the stomach he tried ineffectually to reach the foreign body with the finger; he then drew out almost the whole of the stomach, but without discovering the object of his search. Although it was improbable that the plate had passed the pylorus, he enlarged the wound in the abdomen and explored the abdomen with his hand, but again without success. Only that part of the stomach remained to be searched which is fixed to the spleen. Here Prof. Billroth, introducing his other hand, found the body lying flat against the wall. The stomach was sewn up, put back, and the wound in the abdomen was likewise closed. The patient is already able (March 19) to take liquid nourishment.

Filippo Pacini.

In the *Lancet*, January 31, 1885, we read as follows:

Amongst the anatomists of this century few have established a clearer title to lasting fame than did the discoverer of the Pacinian corpuscles. One of his attached pupils, Dr. Aurelio Bianchi, has just published in *La Medicina Contemporanea* a life sketch of the distinguished histologist, with the welcome promise of a complete biography, based on original documents. Filippo Pacini was born on May 25, 1812, at Pistoja, a town of about 12,000 inhabitants, eighteen miles from Florence. He was one of a numerous and poor family, and was destined by his parents for the church. But he soon exhibited a strong liking and aptitude for the natural sciences, and worked indefatigably in the dissecting-room and in the hospital. Pistoja could not then boast of a microscope, and Pacini constructed one, with a wooden tube and a system of lenses of his own arrangement. Examining the tissues with this rude instrument, he discovered the structure of the corpuscles with which his name is identified. He soon received an appointment to teach microscopy in the University of Pisa, and later on in the school of Florence; but while foreigners were profuse in his praise, the majority of his countrymen appear to have done him scant justice. It was only in 1862, when the celebrated physicist Matteucci became Minister of Public Instruction, that Pacini was supplied with microscopes and teaching apparatus, for which he had hitherto applied to the authorities in vain. His researches on the minute structures of the retina and on the electric organ of the torpedo are well known; and we recently gave an illustrated abstract of the researches on cholera, in which the Italian delineated vibrios closely resembling, if not identical with, the comma bacilli of Koch. Pacini died at Florence on July 9, 1883, according to his biographer, surrounded by only a very few devoted friends, and harassed by the envy of many detractors. This is a charge which we hope may not be sustained by the evidence of the promised complete biography. It is pleasant to recall that Pacini had one great enjoyment in his beautifully situated laboratory and study. They looked on to a lovely little garden at the rear of the great Florence Hospital, a place where a worker imbued with the true philosophical spirit might treat present envy with indifference, while calmly waiting the unerring judgment which impartial time awards to intrinsic merit.

Pennsylvania Railroad Precautions Against Cholera.

General Manager Pugh, of the Pennsylvania Railroad Company, has issued a circular to the employees on all of the lines of the company containing instructions with a view of guarding against cholera. The circular states that while disinfectants will be supplied by the company, there is no disinfectant so effective as cleanliness, both of body and surroundings. All the property of the corporation is to be kept scrupulously clean. The floors and closets of passenger cars are to be washed at least once a week with a disinfectant. Freight cars should be cleaned before departure, and all refuse matter which cannot otherwise be disposed of must be burned. Special attention is to be given water used for drinking and washing purposes. Wells near dwellings should be avoided. No garbage or rubbish—a source of disease—is to be permitted to remain near the water-supply.

Among the disinfectants suggested for use are the "P. R. R." preparation, sulphate of iron or copperas, the residue from the ordinary telegraph

battery mixed with common salt and ice. The order provides that if at any time a case of infectious disease is found at a station, in a passenger car or elsewhere on the company's property, a physician shall be immediately sent for. The car should be removed from the train as soon as practicable, the doors locked, and it should not again be used until it has been fumigated.

The Doctor's Wife.

We believe that the practice is not altogether unknown in this country of a doctor's wife prescribing for patients in the absence of her husband. For the instruction of such persons, we quote the following from an English exchange:

"A somewhat interesting legal action is reported in a recent number of the *Glasgow Herald*, in which a widow lady tried in the sheriff's court to recover $250 in respect of injuries to her health from a medical man, which injuries were alleged to have been produced by medicines prescribed and applied in the absence of the medical man by his wife. It was sought to show that in this case the wife was the agent of her husband, and that he was responsible. The injuries alleged were salivation and its consequence, due to a quantity of mercury prescribed by the defender's wife. The defender denied that the powder given contained anything unusual either in quantity or quality, and, while admitting that his wife occasionally assisted 'in the shop' in his absence or that of the assistant, denied that his wife had any authority to prescribe. He argued that the pursuer (plaintiff) took the risk of the suitability of the powder. The Judge, in giving judgment in accordance with this view of the case, dismissed the action, and found the pursuer liable in expenses. Most people will agree with this judgment. It would be absurd to think that any sane person could conclude that a doctor could delegate prescribing powers to his wife. At the same time the case may serve as a useful warning to good wives, who abound in the medical profession, in the absence or agency of their husbands, to be, if not 'wise as serpents,' at least 'as harmless as doves.'"

State Medical Society of Louisiana.

At the annual meeting held in New Orleans, April 21, 22, and 23, the following papers were read:

"Report of the Committee on State Medicine," by Dr. E. S. Chaillé. "The Mission and Methods of Medicine," by Dr. R. H. Day. "The Blameless Physician," by Mr. W. H. Goodale. "Hemorrhagic Malarial Fever," by Dr. I. J. Newton. "The Neutral or Alkaline Saturation Plan of Treatment in Malarial Irritation and Idiopathic Fevers," by Dr. L. L. Holcomb. "A Rational, Common-sense View of Therapeutics," by Dr. Ashton. "The Relationship of the Teeth to the General System," by Dr. A. G. Friedrichs. "The Nature of the Continued Fevers of Louisiana which Resist Quinine," by Dr. Rudolph Matas. "Inversions of the Gravid Uterus," by Dr. Austin.

The following officers were elected for the ensuing year:

President.—Dr. Samuel Logan, of Orleans.

Vice Presidents.—Dr. E. S. Lewis, Dr. C. J. Bickham, Dr. T. J. Woolf, Dr. A. A. Lyon, Dr. William Kelly, Dr. O. P. Langworthy.

Annual Orator.—Dr. H. D. Bruns.

Place of Meeting.—New Iberia.

Fainting.

A timid person sees, perchance, some accident in which human life is possibly sacrificed, or the sensibilities are otherwise shocked. His feelings overcome him, and he faints. How are we to explain it? Let us see what takes place. The impression upon the brain made by the organ of sight creates (through the agency of special centres in the organ of the mind) an influence upon the heart and the blood-vessels of the brain. This results in a decrease in the amount of blood sent to the brain, and causes a loss of consciousness. In the same way persons become dizzy when looking at a waterfall, or from a height, through the effects of the organs of sight upon the brain.—Dr. A. L. Ranney, in *Harper's Magazine for March.*

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended April 25, 1885.

Sawtelle, H. W., surgeon, when relieved, to proceed to Detroit, Michigan, and assume charge of the service. April 23, 1885.

Urquhart, F, M., passed assistant surgeon, to assume charge of Cape Charles Quarantine Station. April 23, 1885.

Williams, L. L., assistant surgeon, when relieved, to proceed to Norfolk, Va., for temporary duty. April 23, 1885.

Items.

—In 1876, the number of medical students matriculated in Paris was 1,924; in 1883–84 the number was 5,386.

—Dr. Hulbert, of St. Louis, stated at a meeting of the St. Louis Medical Society that he had salivated five patients with a bichloride solution (1 to 3,000), given as a vaginal douche twice a day. (There must have been an unusal susceptibility, or a mistake in compounding.)

—To the Medico-Chirurgical Society of Montreal, Dr. Smith showed two small calcareous masses about the size of half peas which had been expectorated by an old man having senile catarrh. He has been expectorating four or five of these daily for the past eight or ten years.

—Chinoline, one of the most actively antiseptic agents at our command, has been utilized as a local application to diphtheritic membrane. It may be used in combination with glycerin. Donath reports very favorable effects from its use upon the local manifestations of the disease.

—The phonograph, hitherto a scientific curiosity only, is to be utilized by Dr. Zintgraff, of Bonn, who has taken one of these instruments in his African expedition. His intention is to bring home "phonograms" of the savage dialects, by getting the natives to speak into the apparatus.

—Dr. W. J. Gray has informed the Microscopical Society of London that some years ago he tried

balsam of tolu for mounting specimens, but found that it was open to objection on account of the formation of crystals. Mr. C. H. Kain, who recommended its use, has tried it again, and the slides are already full of crystals. The objection, therefore, is serious.

—As the best remedy in burns, Dr. Altschul recommends the following salve:

Bolus albus,		
Olive oil,	āā	℥j.
Goulard's extract,		℥v.
Iodoform,		℥ij.–℥iv.

Inf. succas.

—According to the experience of a correspondent of the *Chemist and Druggist*, an excellent cement for broken mortars may be made by rubbing up calomel with strong mucilage, and using the mixture as in ordinary cases, letting the joint become thoroughly dry. A mortar so cemented was, after some years' wear, still sound enough for ordinary purposes.

—In order to settle the relations of the comma-bacillus to cholera, two Italian gentlemen offer, through the *Deritto*, a newspaper of Rome, "to eat such a quantity of gelatine containing the *microbe* as a scientific commission may judge sufficient to determine the development of cholera, upon condition only that their names be absolutely incognito, and that in case of their death the government or some rich philanthropist take charge of their families."

—It is related that a certain German maiden once presided at a mineral-water fountain, at which there were only two kinds of syrup—vanilla and lemon. To her came a young man and said:

"I want a glass of soda without syrup."

"Ya," replied Katrina; "boot vot kind of syrup you vant him mitout—mitout vanilla or mitout lemon?"

—One of the great drapery houses of Paris is selling at eight cents each little linen bags for baths, described as "Bain savonneux à l'extrait de son," a sort of oatmeal soap bath. The bag contains altogether about half a pound of a perfumed mixture of bran, meal, and powdered soap. On wetting and pressing, a good lather is produced, as well as a soft pad for rubbing the body.

—Dr. Guy Hinsdale, of Philadelphia, records, in the April issue of *The American Journal of the Medical Sciences*, a case of pernicious anæmia, occurring in a male aged twenty-two, extending over more than two years, and terminating in a normal blood count, and full bodily vigor. This adds one more to the list of cases which justify us in having a slightly more hopeful view than we have heretofore commonly entertained of this dangerous malady.

—A bill has been introduced into the Ohio Legislature, under fair prospects of passing, which provides that children under twelve years of age shall not be employed in mines or manufacturing establishments. The bill also prohibits the employment of children in public institutions, such as houses of refuge and workhouses, for more than six hours a day. Firms and business corporations are also required to furnish the females in their employment with suitable seats when not necessarily engaged in the active duties of their business.

—The Kentucky State Medical Society will hold its third annual session at Crab Orchard Spring, Ky., on Wednesday, Thursday, and Friday, June 24, 25, and 26, 1885, commencing at 2 p. m., on Wednesday, June 24th. Reduced hotel and railway rates have been secured. Gentlemen desiring further information will address Dr. Edward Alcorn, Chairman Committee of Arrangements, Hustonville, Ky.

—Dr. J. M. Perkins, of Grove Spring, Mo., sends to the *Med. Record* an interesting report of a case illustrating the possibilities of conservative minor surgery. A boy, aged seven, was riding on a wheat-driller when the second phalanx of his index-finger caught in the cogs and was completely extirpated. Dr. Perkins removed the lacerated tissue, adjusted the first and third phalanges together, dressed the finger with tobacco leaves, and it healed rapidly, giving him a good finger.

—From the *Pharmaceutical Record* we learn that "antichlor" is the name usually applied to any article that will neutralize the baneful effects of an excess of chlorine, as in bleaching processes, etc. The chemicals mostly used are sulphite, hyposulphite, or bisulphite of sodium, as they at once combine with the chlorine; and the addition of a small excess of carbonate of sodium to some of the substances used as an "antichlor" causes the compound to be readily soluble and wash out of the goods. The removal of all excess of chlorine in bleached goods is necessary, as its presence rapidly destroys the strength of the fibre. Probably the best substance as an "antichlor" is bisulphite of sodium.

—Doctor—"Well, how is your ague now?"

Patient—"Worse and worse. I've had the shakes awfully every day:"

"I can't understand that. Did you take the medicine I prescribed?"

"Yes; but it did no good. Do you know, doctor, I think that medicine might do good if I took it before the shakes came on instead of after."

"Why, of course; that is what I directed."

"It did not say so on the bottle."

"Consarn those druggists! What was on the bottle?"

"Shake before taking."

—Paper bottles are now made on a large scale in Germany and Austria. The paper must be well sized, and is composed as follows: 10 parts of rags, 40 of straw, 50 of brown wood-pulp. The paper is impregnated or coated on both sides with 60 parts of defibrinated blood, 35 parts of lime-powder, and 5 parts of sulphate of alumina. After drying, ten or twelve rolled leaves are coated again, placed over each other, and then put into heated moulds. The albumin of the blood forms a combination, on pressure with the lime, which is perfectly impermeable to spirituous liquors. These bottles are made in two pieces, which are joined afterwards.

Personal.

Dr. Judson Daland has removed to No. 319 South 18th street Philadelphia.

THE

MEDICAL AND SURGICAL REPORTER.

No. 1473.] PHILADELPHIA, MAY 23, 1885. [Vol. LII.—No. 21.

Original Department.

Lecture.

SANITARY IGNORANCE AMONG HIGH AND LOW.*

BY ALBERT L. GIHON, A. M., M. D.,

Medical Director United States Navy, President of the American Academy of Medicine, Ex-President of the American Public Health Association, etc.

It is a hazardous undertaking to set out to tell people how ignorant they are, and I risk some such another commentary as once reached me, *sotto voce*, from an indignant listener in an audience to which I was denouncing the hour-glass shaped abomination to which women cling as tenaciously as they make it cling to them—"he would look a great deal better if he had one on himself." Look thyself in the mirror which thou holdest before me, is not unreasonable retaliation upon the one who goes about pointing out motes in others' eyes. However, I do not mean to claim that I am one whit wiser or better than my fellows, but willingly don sack-cloth and ashes with them, and join in the chorus of confession that we are all miserable sinners—as I hope to show we really are—and here that I may have my gentler auditors at least feel not unkindly towards me, I may premise that I do not propose to single out the weaker half of humanity as targets for invective, and deal them ungallant blows they can not return if they would, and thus shall leave the fertile themes of corsets, high-heeled shoes, phantom under-clothing, and other feminine follies, for some bolder cynic.

Without further preface, then, let us together glance cursorily over some of the leaves of the book of knowledge, which, doubtless, we have all read, and which we ought therefore to know all about, but which we have forgotten to keep in mind or put in practice. Such an inquiry is most opportune, for the gradually increasing attention given to sanitary matters, which is very greatly the result of the work of the American Public Health Association, has been quickened by the well-grounded fear of the epidemic prevalence of cholera. State boards of health are being strengthened and established where they have not heretofore existed. Local boards are being burnished into working order, and a Sanitary Protective League of Citizens has been organized in the city of New York, which is the Gomorrah to the Philadelphia Sodom of sanitary ignorance and evil-doing.

But whence is it that in this nineteenth century of civilization and enlightenment, there should be such a degree of sanitary ignorance as to furnish occasion for this sanitary revival? If I mistake not, this very civilization, especially this Christian civilization, of which we are so proud, is at the bottom of our want of knowledge and misdoing. It is a cardinal tenet of our belief that the world and the flesh, and the devil are the three especial things to be abjured. I shall not undertake to be the advocate of the personage last mentioned, nor will I at this time enter my earnest protest against the wholesale contemning of this fair world of ours; but I do most energetically insist that this des-

* Delivered under the auspices of "The Committee on Hygiene and the Relations of the Profession to the Public" of the Philadelphia County Medical Society, in the Hall of the Society, April 18, 1885.

pisal of the body is the foundation of all the sanitary ignorance which has filled the earth with disease and crime. I am very well aware that the theological significance which learned divines give words is not always their literal sense, but double meanings are foreign to the genius of our pure Saxon tongue, whose ringing monosyllables mean just what the humblest hearer of them understands them to imply. The condemnation of the human body as something too gross for human consideration, is the logical sequence of the denunciation of the flesh as utterly vile and sordid, and man has been led to torture and maim and degrade it as the surest way of winning favor with the Almighty Creator, who, nevertheless, formed it, we are taught, in his own image and likeness. The mediæval acceptance of the doctrine filled cloisters with very dirty, however pious, monks and nuns; and though the gospel of uncleanness has been less fervently preached in our day, it is rare even now to find a preacher as orthodox as Dr. Cuyler, to dissent from good Isaac Watts when he invites us to join in hymning, "What worthless worms are we!"

I suppose the assertion will hardly be contested that man is the acme of all created things, and what is man apart from his corporeal expression? Is it possible to conceive of him except as we know him in the flesh? His psychical abstraction is evolved out of the substratum of his physical individuality. He can only be identified by his material form and substance—and this we know to be the most marvelous and complex—the most mysterious and beautiful of all the objects in the universe. The most superficial student of nature cannot but regard with awesome admiration this inimitable mechanism. Follow it from its beginning, in the conjugation of two microscopic cells, and their amalgamation into one, which thence develops into embryo, fœtus, infant, youth, and adult man or woman—he whose dominion is over every living thing that moveth upon the earth—she who embodies the imagination's highest ideals of surpassing loveliness—is this a thing to be despised and loathed? The ignoring of the importance, grandeur and beauty of the human body is common to both educated and uncultured. The latter does not know, the former does not reflect—that the conscious ego has no demonstrable existence independent of the aggregation of organs and apparatus, which constitute the body. The spirit tenant might chafe unheard, unfelt, unknown, if the avenues of the senses were all closed, and consciousness, emotion, thought, be never manifested, were the brain, out of which they are evolved, not rightly formed. Cerebral localization is an assured fact in modern physiology, and the advanced neuropathologist can point to the very spot where the insane fancies of the morbid mind have their origin. If a little patch upon the brain, or a tiny clot within, can transform the man of genius into a driveling idiot; if an insignificant break in the course of a nerve-trunk can convert the athlete into a helpless mass, or an almost imperceptible defect in one of the organs of the senses be enough to shut out all knowledge of which that had been the gate how watchful ought to be our care of this wondrous complicated structure. Islets and atolls rise from the sea, the work of swarms of insignificant zoöphytes; likewise multitudes of microscopic living cells course through vessels so small that they scarce allow their passage, carrying the material out of which other tiny workmen build the archipelago of the brain. Cripple or thin out these little builders—give them no straw or only wretched clay with which to mould their bricks—choke up these narrow lanes through which they must reach their destination—the building can neither be sightly, sound nor stable; and what is true of one organ is true of all. A well conditioned body must have all its parts well-developed and be kept well-nourished, and only such a body, so soundly constituted, can perform properly those functions, whose sum is what we term life, and whose harmonious action is what we mean by health. A broken arm can as well wield a hammer as a morbid brain secrete healthy thought, or a diseased sensorium reflect a normal sensation. The *mens insana* is the product of perverted physical conditions, and in most instances these are imputable to human ignorance and folly. Man, then, being known to us by this bodily presence, which is creation's masterpiece, and which must be sound in structure in all its parts, that their manifold offices may be well performed—one would think that no persuasion would be needed to make this self-conscious, reasoning creature zealously guard from harm this mechanism which makes him what he is. Yet in truth, this life of the body is one long course of shameful ill-usage, and it may be profitable if you and I reflect upon some of the instances in which, in common with our neighbors, we have wilfully neglected our bounden duty to ourselves.

Were I to pick out the most heinous of our offenses against the body, I should single the neglect to properly nurture it as the one pre-eminent—and every rotund auditor here mentally exonerates himself from that fault—but man does not live by bread alone, nor by fish, flesh and fowl. The solid components of his body are few and small beside that one all-pervading gaseous element, which nature provides for him without stint and cost, in the air which surrounds and permeates every tissue of his frame—and he is niggard of it because of its very abundance and cheapness. High and low, rich and poor, the wise man and the fool, rival in ignorance of the absolute need to health of a limitless supply of fresh, pure air. Their dainty stomachs will reject unsavory food, and their delicate hands shrink from the touch of unclean things; but they will greedily and recklessly take into their lungs to be incorporated in themselves viler nuisances than any of the visible filth they have smelt or touched or tasted; for notwithstanding its æriform condition it is as much filth as the fetid ooze of the sewer or the solid putrescence of decomposition. The living germs of disease, the effete particles of human waste, microscopic impurities volatilized by heat and moisture, fill the air and are wafted to and fro by its ever-shifting currents. To realize how these intermingle, watch the little clouds of condensed vapor which on a winter's day are emitted from the mouths and nostrils of a lot of fellow passengers, to be again inhaled into some neighbor's lungs, and you all know how far off even in the open air you can sniff the fumes of a rank cigar. Pack the crowd a hundred-fold denser in some fashionable drawing room, where gas jets and furnace fires contribute to further befoul the air, and though the circling clouds of germ-laden, mephitic vapors are not visible, are they not there? Do not the bejeweled, satin-clad belle and the beau *en grande tenue* breathe with unconcern a vile mess of abominations, which, given shape and color, would be a sorry counterpart to their affected refinement. Yet you may see very learned judges, very profound literati, very sapient doctors, wedged in this same seething mass of humanity seeking what they call pleasure. There are the high in station, the favorites of fashion, society's select few, who in contemptuous ignorance of the plainest sanitary teachings imperil health because others do likewise. This is no rare spectacle. It may be witnessed in the finest salons of this city, where the highest social enjoyment, which unlimited means provide is the massing of human beings in fine clothes in a dense jam, where every possible sanitary law is set at defiance, where the fragile woman discards her accustomed underclothing for unaccustomed exposure, where the stomach not yet rid of its dinner, is loaded with what the appetite does not crave nor the body require, and where the organic exhalations from the lungs and skins of hundreds of human beings are commingled with the products of respiration and combustion to make an impure atmosphere in which they revel for hours. There will be headache and lassitude and malaise on the morrow, which in this locality will be attributed to malaria, *mal air* indeed—air surcharged with microbes and zoöspores, and what not else, but nevertheless not the malign and maligned air of the marsh. Recall the racking pain and nausea experienced after an evening of this sort, and then ask yourself if you are one whit less blameworthy than the red-eyed, swollen-visaged victim of bacchanal indiscretion. The one is being tortured for the villainous hydro-carbons he has forced upon his blood through his stomach; the other just as deservedly tormented for the no less abominable compounds with which he has loaded it through the lungs. Is the folly of the well-bred, high-born habitué of the salon any less an exhibition of sanitary ignorance than the insensate indulgence of the low frequenter of the groggery?

Nor are kettle-drums, teas, or evening routs and receptions, the only occasions when the blood is deliberately poisoned by foul air. The words of the gospel are wafted to the listening sinners' ears, on waves of air not less offensive for being the atmosphere of a crowded church. The judge sits in a court-room where the poison of ochlesis can be tasted as well as smelled. From the galleries of the halls of Congress, one can sniff the living vapors which reverend senators and representatives breathe. Wherever human beings are aggregated—in church, in court-room, in legislative hall, in theatre or lecture room—here where we now are—there is the same heedless, ignorant disregard of what should be the first demand upon the architect—such a system of ventilation as will secure to every individual the supply of oxygen his health imperatively demands. It is the last thought of the builder—because the beauty of the façade, the splendor of the internal decoration, the comfortable seats, the brilliancy of the illumination, and especially the

capacity of the heating apparatus, are the allurements which first attract the frequenter. Even in dwelling-houses, windows are listed, doors doubled, every chink and cranny filled to keep out the cold, though in doing so every inlet for fresh air is closed. Where provision is made to warm the air admitted for ventilation, either this is drawn from the cellar or immediate surface of the ground, both objectionable especially in malarial localities, or it is overheated till all its water is driven off, and its organic constituents are partly burned, or as in one recent instance in my knowledge the apparatus for heating the entering air is in convenient proximity to the open vent of a sewer, and how far this influence extends both sight and scent will indicate if you but watch the course of the rising clouds of foul-smelling vapor from a corner inlet on a frosty day. That it is not soldierly bravery, defying danger, but stolid ignorance of its existence, which is the explanation of the indifference of the general public to the purity of the air they breathe, is proven by the liveliness of their fear of draughts, which these very people manifest when a door or window is opened and its effect felt. Intelligent men and women placidly sit in railway cars, in which every ventilator is closely shut; and whoever has the hardihood to open a window to give his own lungs momentary relief from the burthen of foul air, is sure to excite the ire of some pallid, shivering creature, whose frail body has been made so, in all probability, by the very means used to avert sickness. It is always some living cadaver, hollow-eyed and hungry-looking, wrapped to his eyes in a muffler, who hastens to shut the door left open by some other, who has the commendable habit of never closing one. To appreciate what men can endure without complaining, observe the thick offensive atmosphere they deliberately breathe by the hour in a crowed smoking-car. They would scorn to drink water not so foul, and rather not bathe at all than use it for the purpose.

De Chaumont has shown from a large number of observations that the sense of smell, carefully employed, gives a very fair idea of the amount of impurity in an air-space, and that the scent of organic matter is perceptible to this sense before the coincident carbonic acid gas due to respiratory or personal impurity reaches two parts in ten thousand, which may, therefore, be assumed to be the measure of the maximum amount of such impurity admissible in any properly ventilated place. When this reaches nine parts, the organic matter is so great that the air is oppressive and offensive, and the limit of differentiation by smell has been reached. The apartment is what is ordidarily but most inexpressively termed "very close;" and however much greater the impurity, it is still nothing more than a *close* room. Now in smoking cars, Nichol's analyses show an average of nearly *twenty-three* parts in ten thousand, and this is not incredible when you reflect that the average air-space per individual in a railway car is only about forty cubic feet, while a human being requires a supply of over fifty cubic feet of fresh air a minute to maintain it in good respirable condition. Even in so great an air space as ten thousand cubic feet per head, the limit of admissible impurity will be reached in a little over three hours, but passengers will sit and sleep for many hours in these cars, with every door, window, and ventilator closed, and gas-jets or oil-lamps each consuming almost as much air as the human burner, and carry away with them the germs of insidious maladies that afterwards develop in what, at the time of their outbreak, is considered a most unaccountable manner.

The multiplication of the comforts of civilized life is doubtless greatly to blame for the enervation of the wealthier classes. Overheated and ill-ventilated dwellings and places of resort and recreation, stuffy and foul-smelling street cars, that are used however short the distance to be traversed, that monstrous abomination, a Pullman sleeping-car, which a century hence will be exhibited in illustration of the crudeness of these times—these and other contrivances to secure ease and luxury combine to keep the individual breathing the greater portion of the day a vitiated atmosphere, which saps his vigor, and leaves him a prey to any of a dozen maladies. I once resided in a neighborhood famed for its social inimitability, and, having many occasions to leave the city at a very early hour in the morning, I observed that my own were the only chamber windows in block after block of residences, that had been left open all night, and subsequently, when I expostulated with some who were acquaintances, they insisted that night air was mal-air, and must be kept out—without reflecting that day air was not then to be had indoors, even were it of better quality, and that gas-lights, furnace-fires, water-closets and human exhalations, with possibly the added contributions of pet dogs and cats, made a mess

that no marsh-product could compete with. Is it not lamentable sanitary ignorance which, in trying to steer clear of the Scylla of intermittent, wrecks one's bark on the Charybdis of diphtheria and typhoid?

But what shall we say of that other product of modern civilization—the unventilated school house? I use the adjective as descriptive, not distinctive, for all school houses are unventilated. The prowess and prestige of a race depend upon its physical vigor, and the foundation of this is laid during its childhood and adolescence. One does not expect prolific fruits from withered branches, nor fine cattle from scrawny, ill-favored young, but the human race is recruited at the veriest hap-hazard. The male inheritor of a line of constitutional taint mates another endowed with kindred or dissimilar evil tendencies, and the resulting offspring are naturally cursed with both. Your daughter's fancy, which opposition only intensifies, selects as the husband of her choice one who bears within him the indestructible seeds of congenital or acquired disease, which will consume both her and her wretched progeny, and whom it were better she should die than wed. Your son's whim makes her the object of his passionate longings, whose fragile body, stripped of the artifices of dress, caricatures that womanhood whose maternal duties she is unfit to assume, and whose marital responsibilities she is unable to fulfil. From sallow, attenuated, spindle-legged young men as fathers, and flat-chested, fleshless, weak-backed mothers, what manner of children can come into being? But the deplorable sanitary ignorance that leads to these results does not stop with this. As though the aim were to do the greatest possible harm to the greatest possible number, and thus retard over-population in a way Malthus never contemplated, even the hardy youngling is sent to school to be poisoned by bad air, and succumbs sooner than his feebler companions, whose very ailments make them tolerant of other harmfulness. To appreciate the unwholesome atmosphere the children of this day breathe, let any man or woman with lungs fit to perform their healthy office—for the valetudinary is himself a poor judge of sanitary matters—enter a school-room after it has been an hour occupied. The mawkish odor of over-respired air, recognizable by one coming from out-doors, is not sensible to the superintendents and instructors, who are themselves immersed in it—but its lethal influence is written, as the term advances, in the pallor and tired looks of themselves as well as the children, and is attributed to excessive study or application.

Now, all this is not mere exaggerated fancy. Dr. Bryce, Secretary of the Provincial Board of Health of Ontario, states that, of the five thousand children attending school in Hamilton, in the year 1882, six hundred were absent during the month of January, as many in February, in March slightly more, in April a few less, and in May, when windows could be opened, and the fire in the stove was out, the number reported fell suddenly to fifty per centum of the previous month. In June it was still lower. In September, after the holidays, a small number only was reported sick. In October, when the fires began, the number ran up, and crept up until in December it attained the highest point in the year. One child in every ten had been made sick by going to school, and this not an unfair assumption when we know that the average floor space of these children was only eight feet—in one school only two and a half feet—a condition of things for which no degree of education can be compensation.

(*To be continued.*)

About Snakes.

The *Popular Science News* (May, 1885,) tells us that Mr. Rheem, who has charge of the reptile specimens in the Smithsonian Institute, contradicts much of the popular belief as to snakes. Some of the most dreaded have no existence. The hoop-snake, which takes the end of its tail in its mouth, and rolls over and over like a hoop, killing everything it touches with its venom; and the blow-snake, the breath of which is deadly—are fictions. As serpents move about, they are constantly feeling ahead with the tongue; and the forward thrust and peculiar forked appearance of the organ has given rise to the false idea that with it the stinging is done. It is generally thought that there are a great number of these poisonous snakes. In North America there are but three species—the rattlesnake, the copperhead or moccasin, and the coral. There are about thirty varieties of these species, altogether. The copperhead is probably the most dangerous, as it is vicious, and never gives warning of any kind before striking. The rattlesnake, though more poisonous than either of the others, will rattle at the approach of any thing, and try to get away unless brought to bay. The coral is much smaller, and a native of the Southern States. The bite is not necessarily fatal if the proper remedies are used in time; as, on account of its size, the quantity of poison is small. When a reptile strikes, he throws his whole body forward, and the fangs penetrate the object against which they come. He does not jump—the hinder part of the body remains in position; and none of our snakes are in the habit of reaching more than half their length.

THREE CASES OF IDIOPATHIC ANÆMIA, WITH REMARKS; AND AN ANALYSIS OF THE CASES HITHERTO PUBLISHED IN AMERICA.

BY J. H. MUSSER, M. D., OF PHILADELPHIA.

TABLE B.—CASES OF IDIOPATHIC ANÆMIA IN WHICH THE LESIONS OF THE BONE MARROW WERE FOUND.—(*Concluded from page* 616.)

No.	Physician, Date of Publication, and Reference.	Sex and Age.	Antecedent Condition.	Symptoms.	Duration.	Results of Treatment or Autopsy.
1	Pepper (op. cit.)	M. 50	Chronic follicular catarrh. Attacks of hepatic colic. Mental and bodily overstrain. Iron founder. Psoriasis 12 years. Loss of all his teeth 15 years.	Debility and anæmia apparently causeless; tendency to syncope; œdema transient; hæmic murmurs. Dyspnœa. Irregular fever. Somnolence. Hemorrhages. Delirium. Spleen slightly enlarged. Liver and lymphatics normal. No albuminuria. Extreme reduction of red corpuscles. No rouleaux. Individual corpuscles pale and less bi-concave.	3 months.	Fatty heart, liver, and kidneys. Chronic suppuration of gall-bladder. Lymphatics normal. Bone marrow made up of granular cells, large and small, some nucleated. The lymphoid elements replaced the fat.
2	Gardner and Osler, Canada Med. and Surg. Jour., March, 1877.	M. 52	Laborer. Always subject to slight diarrhœa. Shock and grief 5 years previous.	Pallor; debility; waxy hue; diarrhœa; bruit in heart and vessels; palpitation; dyspnœa; syncopal attacks; fever; no albumen; liver, spleen, and lymphatics normal. Alteration in size and shape of red corpuscles. Microcytosis. No marked emaciation.	Over 2 years.	Fatty heart, liver, and kidneys. Spleen normal. Medulla of bones. 1. Colorless corpuscles, various size. 2. Red corpuscles: *a*. Normal as seen in blood of various shapes; *b*. Microcytes. 3. Nucleated red corpuscles. 4. Cells containing r. c. 5. Myeloplaques. 6. Fat cells absent in some parts. 7. Charcot's crystals.
3	Bell and Osler, Trans. Canada Med. Assoc., 1877.	M. 47	Shoe cutter. Married. Healthy. Good family history. Mental anxiety.	Pallor; debility; loss of appetite. Organs normal. Retinal hemorrhages. Hæmic murmurs. No albumen. Some emaciation. Blood thin and watery. Diminution in number and change in size of r. c. Microcytosis.	1 year and 2 months.	Failure of transfusion. Autopsy.—Ecchymoses and serous effusion. Fatty heart. Spleen enlarged, slightly soft. Bone marrow as in Case 2. Extreme bloodlessness of organs.
4	Osler, Canadian Jour. of Med. Science, May, 1881.	M. 47	Soldier. Baggage-man later. Healthy. No mental distress.	Dirty yellow hue of skin; slight emaciation; debility; dyspnœa; palpitation; poor digestion. Hæmic murmurs. Spleen slightly enlarged. Organs normal. No albumen. Hemorrhages, nasal and retinal. Œdema. 970,000 r. c. per c.mm. Hæmoglobin lessened. Change in form of r. c. Microcytosis and giant corpuscle.		
5	Osler, Ueber die Entwickelung von Blutkörperchen im Knochenmark bei perniciösen Anamie; Centralbl. Med. Wissensch., 1878, No. 26.	F. 20		Blood showed microcytes and large, irregular, non-nucleated cells. No Schultze's granules.		Autopsy.—Bone marrow not fatty, deep red color. The central marrow of radius was fatty. Marrow made up of large and small granular marrow-cells, colorless cells of large size and homogeneous structure. Nucleated red blood-corpuscles, varying in size and shape, red corpuscles, large and small microcytes, cells containing red corpuscles and myeloplaques.
6	Osler, Centralbl. Med. Wissensch., 1877, No. 28.	M. 54		No full history detailed. Red cells pale, flat, and irregular in shape. Microcytes. No change in white corpuscles. General anæmia.		Transfusion. Autopsy.—Bone marrow dark violet-red, and without fat except that from fibula. Histological elements as described in the other case.

	Starr, Phil. Med. Times, 1881.	M. 40	Diarrhœa in war; ague at same time. No syphilis. Worked in lead works at one time.	Early symptoms weakness and frequent urination. Diarrhœa: pallor; dyspnœa; palpitation; œdema. Increased hepatic and splenic dullness. Fever. 745,000 r. c. per c. mm.; 5,000 w. c. Hæmic murmurs.	2 years.	Transfusion. Death. Fatty heart. Spleen slightly enlarged and firm. Bone marrow red, soft, without fat or fibrous tissue. Lymphoid elements of various size, increased in number. Nucleated red corpuscles and myeloplaques.
	Hughes, W. E., Med. and Surg. Rep., 1884.	M. 45	Clerk.	R. c. vary in size, many small and tailed. No retinal hemorrhages. No albumen.		Fatty heart. Normal spleen. Small pancreas. Marrow in tibia, humerus, and sternum. Fat replaced by leucocytes and forms intermediate between red and white corpuscles. No blood clots.
9	Ross, Canada Med. and Surg. Jour., August, 1884.	M. 65	Saddler. Drank to excess in early life. Good medical antecedents.	Pallor marked; dirty lemon hue; little emaciation; dyspnœa; palpitation; cardiac and vascular bruit; œdema. Retinal hemorrhage. R. c. 1,150,000 to 800,000 per c.mm. Microcytes. No nucleated red cells, Few Schultze's granules. Some large r. c. Irregularity of shape of r. c. Blood pale. No fever. Delirium.	2½ years.	Autopsy.—Bone marrow like fœtal marrow. Heart fatty.

Cases of pernicious anæmia have been reported from time to time, which, in the light of the recorded evidence, do not appear to be that affection. With all due deference to the judgment of the reporters, for want of proof, we have not admitted them to our table. Thus in the admirable paper of Prof. Howard, he reports a case which he admits is doubtful, lacking the proof of blood-examination and autopsy. He places it on record on account of the interesting family tendency to anæmia. Four cases of Graham (*op. cit.*) were omitted from our table on account of the same lack of evidence. One (Case 1 of his list) presented such great changes in the supra-renal capsules as to make a doubtful case of Addison's disease without pigmentation; another did not want much evidence to prove it scurvy, rather than idiopathic anæmia. For similar reasons we have excluded the long list of cases Channing presented in his early memoir.

Westbrook* records a case of supposed pernicious anæmia. It does not stand the test of close scrutiny, however, and with Drs. Kretzschman and Armor, who discussed the case, we must consider its nature undetermined. We are forced to the same conclusion from a want of a blood count, the retina examination and autopsy, in the case reported by Kemper.*

In addition to the above-recorded examples, references have been made frequently to cases in discussions or papers, without giving detailed reports. Prof. Minot, in the discussion on Shattuck's case,† refers to four cases which he had seen; and Hutchinson, in his lecture, in addition to the carefully-recorded case, makes allusion to three others he had under observation at various times. Prof. Walker, in a discussion in the Philadelphia Clinical Society (1884), alluded to a case of pernicious anæmia under his observation. So, doubtless, it may be in many more instances; hence our collection does not absolutely indicate the frequency of idiopathic anæmia in this country; it is claimed to be representative of the published records.*

A cursory analysis of the above tables yields some facts of interest. It is observed, that of the thirty-nine cases, comprised in both tables, nine presented evidence of lesions of the bone marrow. Of the remaining thirty, two alone were examined for that change, with negative results; so that of eleven cases of idiopothic anæmia in America, in which the bone marrow was examined in two, the appearances were normal.

Believing that these changes are probably secondary, the following analysis is the result of the study of the combined tables. It embraces chiefly an examination of the ætiological factors, for the

*Westbrook, New York Med. Record, 1884, xl.

*Kemper, Cincinnati Lancet and Clinic, 1879, n. s., iii., 101.

†Shattuck, *op. cit.* (See table).

*Rotch's article, Boston Medical and Surgical Journal, 1876, xciv., is simply a report of two cases from Germany, included in a letter from that country.

purpose of comparison with the results of similar cases in other countries. The symptomatology, the course, the duration, and the morbid anatomy vary so little, if at all, from the results of the elaborate analysis of Eichhorst, Müller, and Pye-Smith, that too much of your valuable time would be occupied by reaching a similar analysis.

Age.—Beginning, therefore, with the age of the cases of idiopathic anæmia, we find but little difference from the accepted dictum on this predisposing cause. Pye-Smith's collection embraces cases from all countries, including but two, however, from America. He excludes all cases in which the bone-marrow was affected. The following table includes his series for comparison, and shows the relation of sex to age and also to marrow changes:

TABLE OF AGE AND SEX. IDIOPATHIC ANÆMIA.

	Pye-Smith.		*Musser.*			
			Marrow changed.		Marrow normal, or not examined.	
	M.*	F.	M.	F.	M.	F.
Under 15..... 6	0	2	0	0	0	2
15–20..... 4	0	1	0	1	0	0
21–30.....29	3	6	0	0	3	6
31–40.....26	4	3	1†	0	3	3
41–50.....21	9	2	4	0	5	2
51–60.....13	4	0	2	0	2	0
61–70..... 4	2	0	1	0	1	0

It will be seen at once that the disease is most frequent in adult years prior to the age of fifty, and that the age in females is strikingly earlier than in males. Looking at each table separately, we find that with the exception of the one female, the age of the other cases in which the bone marrow was diseased, was forty or over. The ages in table A correspond with the first statement in this paragraph.

Sex.—Here, too, our analysis does not coincide with similar ones of Pye-Smith and Coupland,‡ and differs radically from the Germans. Müller, of Zurich, observed nine men in forty-four patients, and Eichhorst's collection gives sixty-five women to thirty men. Coupland's ratio is fifty-six men to fifty-four women, and Pye-Smith's forty-eight of the former to fifty-nine of the latter sex. Our collection yields twenty-four men and fifteen women; or again deducting the marrow cases—which gave the very unusual ratio of the males to the females as nine to one—sixteen males and fourteen females.

Occupation, Habits, etc.—In our cases the occupation was so varied that conclusions would be almost valueless. It could not be said even that physical labor was paramount, as a causal factor, to mental strain, although when noted, the former exceeded the latter. Three were laborers, two mechanics, one a tanner, one a miner, and two were farmers; on the other hand, business men and clerks were similarly affected. Pregnancy, usually considered a predisposing cause, was seen in four cases only. Five of our list were intemperate; four very temperate. One observer thought the free use of stimulants caused the disease in one instance. In four the family history of the patients was good; in one it was wretched. Privation is said to be a causal agency; not so in our cases; in five the circumstances were very good, in six moderate. Not one instance is recorded in the table of actual poverty. Peasants are said to be most frequently subjected to the disease; in our cases we find, though a large number were hospital cases, yet they deserved a higher grade socially, than what is given to the German patients. Malaria was not thought to have any connection with cause in any instance, save one. Shocks and mental strain were observed by some to antedate the disease. The cases of Curtin, of Pepper, and of Osler, indicated this cause. Diarrhœa seemed to be the only derangement of the system that influenced the development of the disease. It occurred or was readily excited in three instances, in all of which the bone marrow was affected. So isolated are these apparent causal factors in an array of cases, that one is almost forced to the conclusion that their relation to the disease was simply as a coincidence, and that the analysis proves that the disease is a primary one, the cause being thus far unknown.

For those who believe the "bone-marrow" cases were cases of pseudo-leukæmia, it is well to advert to the remarkable features of late age and male sex, and the fact that marked mental depression or physical exhaustion, shown by diarrhœa, were present (mental anxiety and shock three cases, diarrhœa three cases). Could not these depressing influences have had some bearing on the myelogenic changes?

Finally, it is instructive to note the localities in which the disease was observed. It had been thought because in parts of Switzerland the inhabitants were so frequently affected with idiopathic anæmia, it was an endemic disease. It will be seen that three places in this country give nearly all the cases, and yet we believe, for reasons entirely apart from endemic influences. Thus fifteen of the cases were observed in Philadelphia, thirteen in Canada (Montreal and To-

* Age of three not reported.

† Æt. 40.

‡ Coupland, "Lectures on America," Lancet, London, 1881.

ronto), eight in Boston, and the remainder in separate localities. This is to us curious, and yet readily explained. In each locality the great attention paid to blood diseases was apparently more influential in recognizing the disease. In Philadelphia, by the labors of Pepper and Henry, the profession has been kept on the lookout for cases. In Canada, Prof. Howard and Prof. Osler, and in Boston, Bradford and Cutter and others, kept the profession alive to the possible presence of idiopathic anæmia. There is no doubt in other places in this country, similar people under similar conditions exist for the development of the disease.

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DESQUAMATIVE INFLAMMATION OF THE MEATUS AUDITORIUS EXTERNUS, MEMBRANA TYMPANI, AND MIDDLE EAR.

BY LAURENCE TURNBULL, M. D., PH. G.

(*Concluded from page* 613.)

Case 9. February, 1885. Bessie S., aged sixteen, Trenton, N. J. This bright, young girl came under my care in 1879–80, aged fourteen years. In almost every particular she resembled case 8, and from the same disease, being a very chronic case of desquamative disease of the middle ear, having been under treatment before seeing me, two years, in Trenton and Philadelphia. Her perforation was in the left ear, and involved the whole membrane, except a very slight rim on one side. The treatment was the same in almost every particular. She recovered entirely, after several relapses, and from 1880 to 1885, remained perfectly well, until this February, when the changes were of such a character as to cause diseases of the ear, throat, nose, and chest from simple exposure to a sudden fall of temperature of 3°, 4°, and even, as on the 11th, of 5° below zero. She noticed her ear to pain her on the night of the 9th of February. She presented herself at my office on the morning of the 12th of February, when I found it filled up with a mass of diseased epithelium scales, mixed with muco-pus. After cleansing it with a solution, 12 per cent. boro. glyceride, I found a minute perforation, and applied the ointment of the same to it, and directed her mother to use a powder of equal parts of boracic acid and gum arabic, at the same time when applied to open the eustachian tube by Valsalva's method. I saw her again on the 14th, and again applied the ointment to the perforation, which was nearly closed. She stated she has had no pain or discharge since, and feels well, except a little weak. She was directed sixty drops of tinctura of coca, three times a day, in water.

This case, with many others, show the great tendency in strumous or tubercular patients to relapse, on simple exposure of the non-protected ears, nose, and mouth, to the inhalation of very cold air, and the importance of protecting such exposed parts.

In cases 6 and 7 there was entire restoration of the membrane from the fine vessels on the edge of the extension of the cicatricial tissue. The character of the tissue which has closed up this entire perforation is produced by the skin on the outside of the membrana tympani externa and the vessels from the mucous membrane, which is the lining of the middle ear.

What is the vibratory power of such a membrane? It is the best artificial membrane that we can have; it makes a shut sac, and if the stapes is not lost, we may have comparatively good hearing, as in cases 6, 7 and 8. If the perforation is large and of long-standing, it requires stimulation with nitrate of silver, or some other agent, to the edges. By keeping the eustachian tubes open the adhesions are not so apt to form, or the membrana tympani to become attached to the promontory.

The mothers in cases 7, 8, 9, were very intelligent ladies, and assisted in carrying out my directions with entire fidelity, to the comfort of the patient and success of the treatment. These patients visited my office as often as I deemed it necessary.

I received the foliowing letter in regard to this case, No. 4th, after her return home, and I print it, as it forms part of the history. In my reply I directed the doctor to use the powdered boracic acid to remove the exuberant polypoid granulations:

CLEARFIELD, PA., Dec. 30, 1884.

DEAR DOCTOR: The young lady, Miss Mary McG., who was under your care during October and November, began to suffer a good deal from her left ear a short time since, and it not being convenient to go to Philadelphia to see you, she came to me. She has asked me to write to you and state her condition, as you desired to hear from her. I found a fleshy mass occupying the external meatus, and protruding from it. The parts were tender, and bled easily. After some anodyne applications the mass, which I took to be a polypus, I removed almost entire by means of a wire ecraseur. After its removal, I was able to get away a lot of what seemed to be sebaceous material, covered with a pellicle which, however, was only epithelium.

These procedures being quite painful, and having occupied some time, I have not succeeded in exploring satisfactorily the deep parts yet, but presume I will be able to do so after while. Except for this, your treatment has been followed. (I applied locally a solution of ten grs. to oz. of silver nitrate after taking away the growth.)

I would be pleased to hear from you, and would be glad to act on any suggestions you have to make.

Very respectfully,

H. B. Van Valzá.

Case 10. *Desquamative Inflammation of the Middle Ear in the Case of a Physician, and Reported by Him.*

Dr. J. S. W., aged forty-nine years.*

History.—My ancestors, on my father's side, generally healthy, so far as I can ascertain. My father is still living, being past eighty-six years of age, and has enjoyed good health, except an occasional attack of catarrh. He has had two attacks of phlegmonous erysipelas in his old age. There is a taint of scrofula on my mother's side. My grandmother died of consumption, and my mother was affected with a scrofulous ulcer of the leg for about thirty-five years. She died at the age of seventy-seven years. My father's hearing has not been good for more than twenty-five years.

I have been affected with boils occasionally, and sometimes with abscesses, from my early boyhood. In the autumn of 1872 had a phlegmonous inflammation within the auricle and external auditory tube, ending in suppuration.

About the latter part of January, or beginning of February, 1881, I had an attack of naso-pharyngeal catarrh or inflammation of the mucous membrane of the air-passages, which continued to grow worse by exposure during the practice of my profession. The inflammation did not extend to my lungs, and I continued to drive out until I was attacked with a severe, deep-seated pain in the head, which continued, with occasional intermissions, for two or three days, when both ears commenced to discharge pus. The attending physician did not examine my ears with a speculum, and thought that there was no perforation of the membrana tympani of either ear; but Dr. Laurence Turnbull examined my ears in the spring of 1884, and saw that there had been a perforation of the left membrana tympani, which had healed.

The discharge from my ears continued for about three weeks. I had them cleansed by syringing with a solution of carbolic soap. While convalescing, I wrote to Dr. Laurence Turnbull for advice concerning my case. He replied that it was a difficult matter to advise me when not able to see the condition of my ears, yet there were two things that I could do, that was to use tonics and alteratives that have a special influence upon the mucous membranes. He recommended ten-grain doses of muriate of ammonia, with a warm application of a mild solution of the same. Dr. Turnbull also advised that my special cachexia must be attended to; if anæmic, use tonics. I gradually recovered, but was still affected with a chronic nasal catarrh.

On the 28th of January, 1883, I had an acute catarrhal attack following exposure in the rain, my ears not being protected and my head only protected by a rubber hat. The discharge from the nostrils was very profuse at first, but in a short time it commenced to subside. I had chilly sensations, which were soon followed by a severe deep-seated pain in the head. I was very restless, especially at night, but did not send for a physician for two or three days after I was taken sick. He applied a blister over the right mastoid process, as the right ear was principally affected this time. The blister remained on longer than the usual time, but did not vesicate; and the right ear commencing to discharge pus, the blister was abandoned. The physician made an examination of the right ear with a speculum, and found a perforation of the membrana tympani. The discharge was very profuse, and of a greenish color at first.

My physician prescribed tinct. ferri chlor., the bowels to be moved by infusion of senna, and morphia sulph. was given at night to procure sleep. A nourishing diet of oysters, etc., was used. After the discharge had continued several weeks so profuse as to require dressing about every two hours, day and night, the physician tried to dry it up by equal parts of salicylic acid and carbonate of magnesia to be blown into the ear, but it did not have any effect in drying up the discharge. Powdered tannic acid was also used, without lessening the discharge, but it made the ear more painful. After the discharge had continued for more than a month, a swelling was observed over the right mastoid process, which increased slowly in size at first, and spread over the back part of the head on the right side. A solution of nitrate of silver (xx. grs. to water f℥ j.) was applied over the swollen surface, which reduced the swelling considerably, but it returned. Tinct. of iodine was also used to paint the mastoid region, but it did not materially reduce the inflammation.

*I was forty-nine years of age when I had the second attack of otitis media pur., in January, 1883.

A weak solution of carbolic acid* was used for syringing the ear, and the strength of the solution gradually increased as strong as it could be borne, which appeared to have a beneficial effect. Cantharidal collodion was applied over the mastoid process until it vesicated, and the surface was kept raw by repeated applications of it. The blister appeared to act favorably, as the swelling and discharge decreased. The physician who was first called being unable to attend any longer, another was consulted, who prescribed iodide of potassium grs. iii. in comp. syrup of sarsaparilla, three times daily. The discharge lessened rapidly under the effects of this medicine, but it returned, and the swelling over the mastoid process and back of the head on the right side increased to a greater extent than ever before. The physician being called again increased the dose of the iodide of potassium to grs. v. three times daily. The discharge and swelling again rapidly decreased. The blistering was repeated.

In May, 1883, I wrote to Dr. Laurence Turnbull for advice. He recommended the ear to be cleansed with a four per cent. solution of boracic acid, used warm, afterwards the eustachian tube to be inflated to drive the pus into the external meatus, then dried thoroughly and boracic acid in impalpable powder to be blown over the suppurating surface. He advised me to stop blistering. I continued to take the iodide of potassium and syrup of sarsaparilla comp. The doctor told me to do an office practice, and to drive out in fine weather, in day time only. I was to protect my ear with a little mass of wool.

Dr. L. Turnbull's treatment appeared to act favorably, as the discharge ceased *permanently*. He advised me to come and see him in July or August. About the middle of August, 1883, I called to see him at his office in Philadelphia. He made a careful examination of my ear, and found that the membrana tympani had entirely healed. He prescribed the following:

℞. Zinci sulph., gr. j.
Imp. powdered boracic acid, grs. l.
M. To be blown into the posterior nares.

My ear continued well during the winter of 1883–4, and on April 16, 1884, I went to Philadelphia to attend the post-graduate course at the Jefferson Medical College. During my attendance as a student at Dr. Turnbull's office, he examined my throat, nostrils, and ears. He found an old perforation of the left membrana tympani, which had healed. He prescribed the following recipes as a nasal douche, to be used warm:

℞. Biborate of soda, ʒij.
Bicarb. of soda, ʒij.
Carbolic acid, gtts. xx.
Aqua bull., Oj. M.

℞. Tinct. ferri chlor.,
Powdered alum, āā ʒij.
To be applied to the throat and uvula.

Internally, fld. ext. malt and syr. hypophos. comp.

I feel very thankful to a Divine Providence and the skill of the physicians, that I am again restored to reasonable health and strength.

*These remedies I used on my own responsibility, and not by the advice of my physicians.

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL.

BY EDWARD T. BRUEN, M. D.,

Physician to the Hospital and Assistant Professor of Physical Diagnosis in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M. D.

The Diagnostic Differences Between Simple Bronchitis and Bronchitis Dependent upon Renal and Cardiac Lesions. Also a Case of Convulsions Occurring in the Course of a Case of Cirrhosis of the Liver.

GENTLEMEN: The cases which I shall show you this morning will illustrate a subject of an exceedingly practical nature, namely, the diagnosis between bronchitis and heart disease. You may say that this is not a difficult matter—any tyro could tell whether the case was one of heart disease or one of bronchitis; yet I assure you that there are forms of bronchitis which are difficult to differentiate, and which are liable to be confounded with simple bronchitis, when in reality they are dependent upon a more general cause. The best way of announcing the subject would, perhaps, be the diagnosis between simple bronchitis and bronchitis dependent upon circulatory disturbance.

Our first patient is this man, H., aged forty-seven years. Ten days ago he came into the house with considerable dyspnœa, with the chest full of moist rales, and with rather harsh breathing. There were no sonorous rales. The rales were heard over both the anterior and posterior portions of the chest. It was noted that the air seemed to enter the chest readily. There was a free, full inspiratory act, and a clear expiratory sound, low-pitched and diffused. You observe that we have symptoms which might be ascribed to simple bronchitis, namely, vesicular breathing, slightly harsh, and an abundance of rales in the chest, with no bronchial breathing, no dullness, but, in fact, extra-resonance. There were, however, certain points about this case which it was important to recognize in view of the treatment, for if this case were treated as one of ordinary bronchitis, recovery might be prolonged, or even doubtful.

The first unusual point was in connection with

the shortness of breath. There are two terms applied to express shortness of breath, dyspnœa, which is generally applied to shortness of breath dependent on deficient entrance of air into the bronchial tubes, preventing its permeation through the lungs and into the blood; the second term is apnœa, which is used to describe shortness of breath not dependent upon the obstruction of the bronchial tubes, but due to the fact that the interchange between the oxygen of the air and the carbonic acid of the blood is interrupted. The reason of this interference is venous repletion. Dr. Fothergill has put it in this way: "In ordinary dyspnœa, the air cannot reach the blood; while in apnœa, the blood cannot reach the air." This patient was suffering from apnœa, for auscultation of the chest showed that sufficient air entered the lungs. Whenever you see a case which seems to be one of bronchitis and yet the patient is more short of breath than you think he should be, suspect apnœa. Apnœa may be caused in various ways. This patient illustrates one of these. I suspected that the symptoms were referable to contracted kidney, and when the urine was tested with the ordinary nitric acid test, it showed distinctly the presence of albumen.

What has this to do with the shortness of breath? If you remember what I have said on a former occasion, and shall repeat later in the hour, in reference to the effect of albuminoids entering the blood, you will have the explanation. As we have seen, these albuminoids are capable of interfering with the proper interchange of the nutritious elements of the blood with the waste products of the tissues. This may keep up an irritation of the circulatory tract just as positive as the irritation that you may cause on the finger by tickling it with a feather. To appreciate this, you have only to recall a clinical fact. The modern method of treating many cases of neuralgia consists in percussion. It has been found that percussing with an instrument prepared for the purpose, vibrating as many as ninety times a second, will dissipate many cases of facial neuralgia in five minutes, the attack being cured by nerve vibration. In cases of renal asthma and bronchitis, the irritation of the filaments of the vaso-motor nerves is produced by the circulation in the blood of imperfectly-reduced albuminoids. This, kept up for years, as it is in contracted kidney, produces what is known as arterial capillary fibrosis, which means an increase of the fibrous tissue of the walls of the arteries. This general thickening is of extremely constant occurrence in contracted kidney, being present in at least seventy-five per cent. of the cases, and we come to look for it as one of the most diagnostic signs of this condition.

An individual under these circumstances catches cold. The cold cuts off the function of the skin, which is complementary to the action of the kidneys. The function of the kidneys having been reduced and the action of the skin checked, these imperfectly reduced albuminoids are retained in the blood, producing vaso-motor spasm, and the effect of the spasmodic contraction is increased by the abdominal tension of the arteries due to the fibrosis. Thus marked repletion of blood on the right side of the heart is induced, and also in the radicles of the pulmonary artery and the lung becomes surcharged with venous blood. Now you can see why our patient should have suffered from air hunger; the blood could not reach the air. This is the condition known as renal asthma. It is sometimes very marked, and at other times less so. It is most important to recognize the character of the affection, for the treatment of ordinary asthma, applied to renal asthma, may cause sudden death, as has happened in the most excellent hands.

What should be the treatment when we recognize renal asthma? The diagnosis is made by the ordinary physical signs of bronchitis, and the appreciation of the fact that air is entering and leaving the chest perfectly. This, with the discovery of albumen in the urine, and the absence of cardiac disease as shown by auscultation, gives the diagnosis.

Under these circumstances, let me caution you against improper treatment. A prominent surgeon while at a summer resort was suddenly called to see a case of asthma. He did what is commonly done in ordinary asthma, administered ether; and the patient died under the ether. The patient died because the respiratory centre was already overwhelmed with venous blood; the ether simply increased the disorder and destroyed the patient, for you know that when ether kills it is by paralyzing the respiratory centre.

The proper treatment is to eliminate the irritating matters by purging and jaborandi sweating. These measures act slowly, but something must be done at once to relieve the tension in the arteries. In these cases of contracted kidneys, the heart is usually hypertrophied, and under such circumstances it would be safe to use nitro-glycerine. Two drops of a one per cent. solution may be given two or three times a day. One drop is usually enough. In this case nitro-glycerine relieved the spasm to a certain extent, but as his heart is not hypertrophied, the muscle having passed from the stage of hypertrophy to that of degeneration, nitro-glycerine depressed the heart by lowering the arterial tension so that after two days we had to stop the drug. We continued to act on the principle of elimination, giving jaborandi and occasionally a purge. To these remedies were added digitalis and acetate of potassium, which were calculated to increase the circulation through the kidneys, and the acetate of potassium favors elimination, for these albuminoids pass from the system in the form of urates in combination with an alkali. There are other remedies which may be given. The best of these is perhaps bromide of potassium, to relieve dyspnœa. Such remedies as belladonna are not applicable, for you do not want drugs that relax bronchial spasm, but remedies which are going to act on the vaso-motor spasm. Bromide of potassium, given in fifteen grain to thirty grain doses, repeated according to the indication every two or three hours, will usually be sufficient to afford relief. I am always inclined to prescribe a little bromide of ammonium with the bromide of potassium, as more stimulative to the circulation. This, as you see, is not the treatment for simple bronchitis, which should be treated with depressant or stimulant expectorants. We did not give this patient any treatment directed

to act upon the bronchial mucous membrane until we had relieved the apnœa. We then ordered a stimulant expectorant to rid the lungs of the rales which still remained, giving carbonate of ammonia and digitalis.

Let us now pass to the next patient, who came in with an obstinate cough, marked shortness of breath, numerous rales through the lung, the respiratory murmur though harsh was vesicular; here the diagnosis might have been simple bronchitis. But the symptoms seemed to point rather to apnœa than to dyspnœa, because the air entered the lung in sufficient amount to obviate shortness of breath from this cause. The urine was examined, but no albumen found. We had found great increase in the arterial tension, the radial arteries feeling like pieces of wire. Finding no evidence of renal disease, we turned next to some other condition which was capable of causing this arterial fibrosis. There are only a few conditions that cause this affection of the arteries, and these are, in the order of frequency, renal disease, alcoholism, specific disease, and rheumatism. We found that this patient was addicted to the use of alcohol, and probably was syphilitic. Auscultation also showed that both the first and second cardiac sounds were very weak. Here, then, is a man apparently strong and hearty; why should he have a feeble heart? When a patient about the age of this patient (40) comes to you with a weak heart, without valvular disease or wasting disorder, you should suspect alcoholism or some depressing emotion which has temporarily depressed the heart. In our patient we are easily able to appreciate this. The depressing effect of alcohol on the heart had probably been increased by the degeneration of the cardiac substance. You know that alcohol is passed off by oxidization. If the oxygen of the blood is consumed in oxygenating the alcohol, an insufficient supply is left to consume the waste of the tissues, and so fatty degeneration follows in the train of chronic alcoholism. We can easily see how the bronchitis would be caused from the venous repletion resulting from the weak heart and the increased arterial tension.

The knowledge of the cause gave us the indications for treatment. All drugs given with the idea of increasing secretion from the bronchial mucous membrane would be of no service unless combined with drugs to act on the heart and relieve the venous repletion. In our patient, counter-irritation by means of turpentine, poultices, or even cupping, was indicated to relieve the venous congestion. For the condition of the heart we prescribed digitalis and carbonate of ammonia, giving ten drops of tincture of digitalis and five grains of carbonate of ammonia in a teaspoonful of mucilage and a teaspoonful of water every three hours. I never give carbonate of ammonia in a more concentrated form than this.

If there is, with this condition of cardiac bronchitis, an ordinary bronchitis from cold, you may, while treating the heart element, give some of the remedies indicated to act on the bronchial mucous membrane, such as potash, squill, and muriate of ammonia.

My own experience in the treatment of simple bronchitis has been that the expectorants designed to increase secretion of the bronchial mucous membrane may be at first freely given; but their use should not be prolonged, but should soon be substituted by the stimulative expectorants. I have found that if the bronchitis is not rapidly cured by these, but passes into a subacute condition, more can be accomplished by building up the general strength than by acting on the bronchial mucous membrane directly. In cases of cardiac bronchitis a great deal can be accomplished by building, not only by acting on the heart directly, but also by the use of such drugs as strychnia, arsenic, and iron.

We shall prescribe for this man the following pill:

℞. Strychniæ sulphatis,
Acid arseniosi, āā grs. ss.
Pil. ferri carb., grs. xxiv.
Oleo-resinæ capsici, gtts. vj.
Extracti gentian, grs. xij.
M. et. ft. pil. No. 24.
Sig.—one, three times a day.

An especial reason for using strychnia is that it increases the depth of the respirations, and thereby facilitates oxygenation of the blood, which is interfered with by the weak heart.

In conclusion, in reference to the diagnosis of bronchitis with valvular heart disease. In some cases, on auscultation, there may be heard vesicular breathing, with abundant mucous rales, and the loudness of these rales may prevent the cardiac sounds from being heard, so that one may not be able to decide whether the case is one of simple bronchitis or bronchitis secondary to cardiac valvular disease. If there is mitral regurgitation, for example, there will be such symptoms as enlargement of the liver, dropsy of the limbs, and distension of the abdomen. It is on such symptoms, in connection with the physical signs in the chest, that one must base a diagnosis. The dyspnœa of these cases may occasionally be due to pulmonry apoplexy, from the rupture of some of the radicles of the pulmonary artery.

The point which I wish to impress upon you in closing is, that while there are some cases of apnœa in which we can have a clear diagnosis of contracted kidney, and in others a weak heart, there are other cases in which the ordinary symptoms of bronchitis are present, and are sufficient to mask the condition of valvular heart disease. In these cases the diagnosis can be made only by looking for the lesions consequent upon valvular disorder, as, for example, in regurgitation, enlargement of the liver, dropsy of the limbs, tympanitic distension of the abdomen, and possibly albumen in the urine, and finally that in these cases the shortness of breath may be due to a complication such as pulmonary apoplexy, or a rupture of some of the radicles of the pulmonary artery, causing hemorrhagic infarction.

—*Le Journal d' Hygiene* publishes a comparative table of the probabilities of life for moderate drinkers and total abstainers. According to this, a moderate drinker at twenty years of age may expect to live 15.6 years; at thirty, 13; at forty, 11.6; at fifty, 10.8; at sixty, 8.9. The probability for total abstainers is, at twenty years, 44.2; at thirty, 36.5; at forty, 28.8; at fifty, 21.25; and at sixty, 15.285.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, March 25, 1885. The President, Dr. Shakespeare, in the chair.

Specimen of Double Aneurism of the Ascending and Transverse Aortic Arch.

Presented by Dr. Henry Beates, Jr., who said:

A somewhat detailed history is given of this case, as the cause of the disease, other than that of a generally poor constitutional condition, is rather obscure. Mr. T. B., German, æt. 37, vocation music-printer, furnishes the following: Father died suddenly, presumably of cardiac disease, as he had acute articular rheumatism twenty-five years previously—a time, it may be noted, prior to the conception of the patient from whom this specimen was obtained. The mother succumbed at the age of 71 from an attack of pneumonia (acute?). Two brothers and a sister died of phthisis, and one brother from insanity (general paralysis?), which was a sequel of typhoid fever. There is no other instance of nervous disease known in the ancestry of either paternal or maternal side. Mr. B. himself suffered from the usual illnesses of childhood, but has never had rheumatism or syphilis. Twelve years ago, while at work at a press, a lever struck him rather forcibly on the chest. This blow, while strong did not occasion especial inconvenience, and developed an ordinary bruise, which soon disappeared, leaving nothing remaining. During the summer of '76, he noticed that his usual exertions were accompanied with shortness of breath and undue cardiac action. Vague symptoms confined to thorax occasionally occurred, but attracted no special attention. This condition, gradually augmenting, existed until the winter of '80–'81, when he suffered his first attack of dyspnœa. Laboring under an ordinary cold at the time, the disturbance was attributed to it and ignored. Similar paroxysms occurred throughout the year, finally being complicated with neuralgia of the right intercostals and occasionally trunks of the brachial plexus. A thoroughly established dry paroxysmal cough confirmed the patient's belief that he was a victim of phthisis. At this time he was first seen. The physical signs clearly indicated aneurism. The apex beat was in the sixth interspace, and to the left of nipple line. Epigastric pulsation, percussion dullness in second and third interspaces, extending to right as far as mammary line, expansive bulging of this area, with bruit, expansion being synchronous with apex beat, and other valvular sounds negative, dissipated doubt as to the character of the affection. The area of dullness of the second interspace comparatively rapidly developed toward the axillary line, and contemporaneously did the impulse visibly augment. This was considered to be dependent upon a rapid dilatation of a thin portion of the sac. Under rigid treatment of rest and diet, this special area ceased to pulsate and materially diminished. Notwithstanding this, the aortic systolic bruit remained, and the phenomena of bronchial spasm and paralysis of the vocal membranes steadily progressed until death from suffocation terminated life. The specimen demonstrates advanced atheroma of the ascending and transverse arch, with fusiform dilatation extending from its origin to the commencement of the descending portion. Originating from the superior or convex wall of this aneurism, about one inch toward the proximal portion from the innominate artery, is this sacculated aneurism which has attained the size of a lemon. Between this latter and the trachea there exists a portion of the fusiform sac which presses upon and partially occludes the trachea. The secondary aneurism communicated with the primary by a small orifice and the diminution of symptoms in that portion occupying the second interspace is now fully explained. The recurrent laryngeal branch of the pneumogastric is seen to be flattened by pressure of the aneurism against the anterior wall of the trachea, and the immediate cause of fatal asphyxia demonstrated.

Case of Aortic and Mitral Incompetence.

Presented by Dr. H. M. Fisher.

Michael S., æt. 59, night-watchman, was admitted to the Episcopal Hospital, January 29, 1885. For the following notes I am indebted to Dr. J. K. Mitchell, the resident physician:

Has always been a hard drinker, and for several years has suffered from occasional attacks of cough and dyspnœa. Three days ago was seized with sudden dyspnœa and orthopnœa. The patient was very fat and decidedly cyanosed; had short cough, and his legs were very œdematous. An old abdominal hernia was very prominent. On auscultation of his chest, sonorous and sibilant and some moist rales were heard; also a double murmur at aortic cartilage, partially replacing first sound and entirely replacing second, and a loud systolic murmur at apex. Heart evidently hypertrophied, but difficult to define limits of præcordial dullness, owing to extreme thickness of chest-walls. Ordered tr. digitalis, gtts. xxxv. (= ℥ xv.) every four hours, and directed urine to be measured; dry cups to bases of both lungs, and strychniæ, gr. $\frac{1}{30}$ t. d.

January 30. Passsed twenty to twenty-five ounces urine, about, which was milky, and showed by usual tests a very large amount of albumen; has very great dyspnœa. Ordered tr. digitalis, ℥ x., hypodermically, and then ℥ xxx. every two hours.

February 2. Breathing somewhat better. Ordered bases of both lungs cupped again, and scillæ, pil. hydrarg. āā gr. j.; pulv. digitalis, grs. ij., ter in die.

February 5. Dyspnœa greater again. Tr. digitalis, ℥ xxx., every three hours.

February 6. Dropped as he walked across the ward to-day; became purple in the face, and was dying before Dr. Mitchell reached him.

Post-mortem Examination Twenty Hours After Death.—Belly walls show three inches of fat. No fluid in abdominal cavity. Kidneys normal, or slightly congested. Enormous masses of fat upon omentum, which half conceal intestines. Liver very large, soft, and brittle; much congested. Lungs internally congested. Heart enormously hypertrophied, enveloped in fat, vessels very much distended, and cavities filled with dark fluid blood, except the right auricle, which was collapsed. Left side of heart much overgrown,

and its ventricular walls greatly thickened, but apparently no muscular degeneration. Both left cavities partially filled by very firm ante-mortem clot extending through auriculo-ventricular orifice, and having the consistence and appearance of muscular tissue. None of the valves would hold. The mitral valve-way was large enough to admit to two fingers easily. There were signs of old inflammation at the commencement of the aorta, and several white fibrous patches on the external surface of the heart.

Heart Showing Dilated Hypertrophy from a Case of Calculus Pyelitis.

Presented by Dr. H. M. Fisher.

B. R., æt. 35, an Italian tailor, was admitted to the Episcopal Hospital under Dr. M. J. Lewis's care, October 18, 1884. The following notes of this case were furnished me by Dr. J. K. Mitchell, the resident physician:

"Had rheumatism three years ago, and has suffered from palpitation of the heart and dyspnœa for three months. No pain in lumbar region, or increased frequency of micturition seems to have been complained of, and he gave no history of renal colic. He applied for admission to the Pennsylvania Hospital on account of his dyspnœa and dropsy, in July, remained under treatment there for six weeks, and was discharged August 15th."

Upon admission to the Episcopal Hospital it was noticed that his abdomen measured 33 inches at the navel, that his chest was large and extremely fat, but apparently not œdematous. The apex beat of the heart was at the upper border of the sixth rib, 5½ inches to the left of the sternum. Heart broad at base; dullness begins at third intestine, and extends to line of apex beat—a line drawn horizontally to sternum comprises the base; heart's dullness pyramidal in shape, with base downwards. *No murmurs.* Sounds muffled and distant; no friction sounds. Posteriorly—right side dull up to line of scapula. Breath sounds and fremitus almost absent in right side. Nasal twang to voice heard just below angle of scapula. Effusion in right pleural cavity and pericardium. Base of left lung posteriorly dull on percussion. Œdema of feet and foreskin. Urine, sp. gr. 1010. Heller's test shows a marked ring. Boiling and acetic acid give a distinct cloud of albumen. The microscope shows large, pale, granular, and "pus" casts.

October 20. Soft murmur heard to-day at fourth interspace, midway between sternum and nipple, and somewhat presystolic in time. Pericardial friction. Measurement from pubes to umbilicus 8 inches; measurement from umbilicus to ensiform 10 inches.

October 21. For first time noticed a flutter in venous pulse; second sound appears to be double, but there is no true murmur. Movement of left chest diminished. Breathing is harsh on left side, and expiration prolonged.

October 22. Over the whole of præcardial regions, from midway between sternum and nipple to nipple line below fifth rib, a double pulsation, corresponding to the two sounds of the heart, is felt. The point of greatest intensity is at about the sixth interspace, midway between the nipple and the sternum. Percussion dullness over left chest diminished.

October 28. Dr. Lewis aspirated twenty-seven ounces of dark straw-colored fluid from patient's right pleural cavity. This gave some relief.

October 29. Fremitus can be felt over the whole of the base of patient's right lung this morning. Line of absolute dullness from the base up to within one-half inch of the angle of the capula. On the left side there is dullness from the base to a point three inches below the angle of the scapula. Pulse 100, respiration 38; has scanty mucous, blood-tinged expectoration.

October 30. Urine scanty during last twenty-four hours. Ordered fld. ext. jaborandi, gtts. xx. This was followed by profuse sweating.

November 4. Urine measures eight ounces. From this time till January 1, when I came on duty, the œdema was held in check by the administration of jaborandi, and punctures of the legs and scrotum. I found him suffering from pretty general anasarca, and on account of the evidences of extreme cardiac dilatation, I ordered him tincture of digitalis, gtts. xxxv., every four hours, and in accordance with Balfour's recommendation, directed that after about five drachms of the tincture (about forty grains of the drug) had been administered, the digitalis should either be temporarily suspended or given in very much smaller doses. Under this treatment, the dropsy was, for a time, considerably reduced, but very free diuresis did not occur.

January 10. Urine in last twenty-four hours, forty-six to forty-eight ounces.

January 12. Urine, fifty-four ounces. Apex beat, now in sixth interspace, two and a half inches to left of nipple line. In the third space, cardiac dullness extends from one inch to the right of the median line, two and three-quarters inches to the left of it. There is a marked diastolic murmur heard at the xiphoid cartilage, and a systolic murmur at or near the point of apex beat.

February 5. Pleural effusion greatly diminished. Urine varies from forty-eight to fifty-six ounces. Tincture of digitalis intermitted every third day, generally for twenty-four hours. Has now and then some abdominal pain. For the last two days has complained of pain in the sixth right interspace, and there is a slight yellowing of the conjunctivæ. For the relief of these symptoms he was ordered to be leeched over the region of the liver.

February 6. Pain relieved, and jaundice has diminished.

February 8. Found dead in bed this morning.

Post-mortem examination thirty hours after death. Five quarts of bloody serum were removed from the right pleural cavity. The right lung was much compressed by this effusion. A hard, white nodule, surrounded by cicatricial tissue in lower lobe of right lung. The spleen was enlarged, had a nutmeg appearance, and weighed thirteen ounces. Liver very large, rather paler than normal, but no spots of infarction could be seen. It weighed five pounds, six ounces. The right kidney was very small, felt hard and lumpy, and weighed four ounces, and was in a state of complete cystic degeneration; some small calculus was found embedded in its substance. The left kidney was very large, weighing fourteen ounces, smooth, hard, and brittle, and congested.

Its capsule was non-adherent. The heart was huge, weighing just two pounds. Its walls were thickened throughout even the walls of the right auricle being hypertrophied. Both ventricles were much dilated. The tricuspid valve admitted two fingers and contained a large, firm white clot. The mitral valve admitted three fingers easily. The aortic valve was not thoroughly competent. There were no marked evidences of recent valvulitis. No clot was found in the left heart.

In examining the clinical history of this case, one cannot, I think, fail to be impressed by the extreme latency of the renal symptom, at least of the symptoms that could have pointed to pyelitis. The disease may have originated with the attack of rheumatism, three years ago. Perhaps the pain then complained of may have been due to the passage of a calculus along the ureter; but there being no bladder symptoms while he was in the hospital, there was no pain complained of at that time that could well be referred to the passage of a calculus. The right kidney being rendered functionally incompetent by cystic degeneration, compensatory hypertrophy of the left kidney appears to have been set up. This organ, likewise, was impaired in function, owing to undue strain perhaps, and the microscope shows that its secreting cells are unduly granular. Though the heart showed evidence of old valvular diseases, this alone would, I think, be hardly sufficient to account for the immense dilatation and hypertrophy that then existed. The extreme hypertrophy was, I think, rather secondary to the disturbance in the renal function.

Dr. Tyson said that this specimen of Dr. Fisher's well sustained the connection of hypertrophy of the heart and interstitial, or indeed any other form of chronic renal trouble; so that seeing a heart like the present one, enormously hypertrophied without any valvular lesions, we could at once infer that the kidneys were affected with some chronic form of Bright's disease.

Dr. Fisher asked whether calculus pyelitis was commonly as latent a disease as in this instance? Dr. Tyson replied that it was not uncommonly so latent that nothing beyond a contracted kidney had been suspected until the autopsy, since during life the urine had given no evidences indicative of a purulent process affecting any portion of the urinary tract.

Case of Acute Endocarditis in a Dog, with Embolic Infarctions in Heart and Kidneys.

Presented by Dr. H. M. Fisher.

This was a carriage-dog about nine years old. Since he had had one of his eyes put out about four years ago, by somebody firing a load of small shot at him, he had had much less spirit than previously, and had become very fat. It was noticed two or three days before his death that he was languid and "off his feed," and he was observed to have a slight convulsion. Another fit occurred a few hours before his death. He was found dead one morning in the horse-stall.

On opening his chest I found that his *lungs* were collapsed, but easily distended by forcing air through the trachea, and that they presented nothing otherwise abnormal. Large veins in neck were greatly distended by black blood. A small shot was found imbedded in the anterior surface of the transverse portion of the arch of the aorta. The right auricle of the *heart* and the canal were found to be distended with black fluid. The heart weighed nine ounces. The tricuspid valve showed numerous vegetations, and was somewhat thickened. There were some points of infarction at the origin of the chordæ tendineæ. The mitral valve showed inflammatory vegetations, several of which, from their appearance, were evidently of recent production. One or two of these left when detached an ulcerated surface. The aortic leaflets were thickened and rigid, and the aorta showed much thickening generally, and other signs of atheromatous change. There were some yellowish spots in the heart muscle, which looked like the débris of former emboli; also two infarctions which were apparently recent in the left ventricular wall.

The left *kidney* weighed three ounces. Externally to it, in the perinephritic tissue, was a recent blood clot; and immediately beneath this, in the kidney itself, there was a wedge-shaped or conical infarction about three-quarters of an inch in diameter at its base, the base of it abutting directly upon the capsule of the kidney, and causing a pouting of the surface of the kidney at this point. The capsule of the kidney was somewhat adherent, and the whole surface lobulated. Section of the kidney showed marked fibrous indurations, and one or two other smaller recent infarctions were seen in it. The pelvis was occupied by an oblong and jagged calculus, which was very brittle. The right *kidney* weighed two ounces, and was also markedly lobulated, and presented at one spot a well-marked cicatricial depression, probably due to previous infarction. One or two spots of recent infarction were also noticed in the cortical portion of this organ, and its pelvis also contained a number of small calculi. The *liver* was irregular in outline, and its vessels were filled with black blood. The left lobe was intensely congested, and very soft and friable. The *spleen* was rather small, and apparently of normal consistence.

—In the *Boston M. aod S. Jour.*, March 26, 1885, Dr. Baker speaks of the great advantage of the electric light over reflected light in examination of the urethra. The apparatus consists of an incandescent burner contained in a glass bulb, and connected with a suitable battery. The apparatus is strapped upon the forehead, and was capable of shedding a flood of light into the urethra; the result is gratifying in the extreme. The only disadvantage is that of expense.

—Dr. Ferrier read a report before the Surgical Society of Paris on a work by Dr. Dransart, who proposed the adjunction of chloroform to cocaine for operations on the eye. The chloroform is administered in the usual way after an instillation of cocaine, and the time taken up to administer the former is thus reduced to one or two minutes. The advantages claimed for this method are that the deeper tissues of the eye, such as the iris, muscles, optic nerve, etc., may be cut into without causing pain, which would not be the case with the instillation of cocaine alone. The duration of chloroformization being considerably reduced, the dangers attending the administration of chloroform are *pro tanto* diminished.

EDITORIAL DEPARTMENT.

PERISCOPE.

Treatment of Urethral Stricture.

Before the West London Medico-Chirurgical Society (*Med. Times*, March 14, 1885), Mr. F. Swinford Edwards read a paper on this subject. After tracing the history of the treatment of this affection from the time of John Hunter, the author drew attention to the normal size of the urethra, and stated that he fully agreed with Otis in his views obtained from measurements of this canal by the urethra-metre. He next spoke of contractions of the orifice, and showed how often this was the cause of a persistent gleet. Mr. Edwards divided stricture (organic) into two great classes, viz., strictures of the penile urethra and strictures of the fixed or bulbo-membranous urethra. For the first variety he recommended free division by means of the dilating urethrotome, and at the same time stated that sometimes after this treatment an impassable sub-pubic stricture would after a time disappear, showing that it was spasmodic in nature, and kept up by the co-existing anterior contraction. After stating that gradual interrupted dilatation should always first be tried, gradual continuous dilatation was spoken of and condemned as often giving rise to inflammatory complications, amongst which was cystitis, for the cure of which internal urethrotomy had more than once been successful. Rapid dilatation, as performed by Harrison's modification of Holt's dilator, was strongly recommended in cases of subpubic stricture where a cutting operation was unadvisable. In discussing internal urethrotomy in cases of deep-seated stricture, Teevan's modification of Maisonneuve's urethrotome was extolled. Mr. Swinford Edwards had performed internal urethrotomy by means of this instrument in nearly thirty cases, with invariable success. During the past three years there had been 142 cases of internal urethrotomy at St. Peter's Hospital, with three deaths only, two of these cases dying from accidental causes which would probably not recur. In the third case there was old-standing suppurative nephritis. Suppression of urine was the after-complication most to be dreaded in these cases. The means to prevent and ameliorate this having having been laid down, the above statistics were then compared with those given by Erichsen, viz., twenty-six of internal urethrotomy in five years, with four deaths; eight cases of perineal abscess, besides extravasation of urine in one and epididymitis in four. In this hospital Maisonneuve's urethrotome is not used. Holt's immediate method was not favorably criticised. External urethrotomy was considered more dangerous than internal, and Mr. Edwards said that it ought to be limited, except, possibly, in some cases of traumatic stricture, accompanied or not by urinary fistulæ, to cases of impassable stricture, which ought now-a-days to be but few and far between, looking to the great improvement which has of late years taken place in bougies. In conclusion, the author dwelt upon the importance of being able to recognize the presence of stricture of large calibre situate in the penile urethra, such a condition being quite sufficient to keep up a chronic urethral discharge, to cause vesical irritability and other urinary troubles, not forgetting spasmodic stricture in the deep urethra. If this anterior stricture of large calibre admits of treatment by bougie, *i. e.*, if one is able to restore the urethra to its normal size by this means, well and good; but if not, immense benefit will be derived from dilating urethrotomy in careful hands.

In the discussion which ensued, the president remarked on the great improvements in instruments during recent years.

Mr. R. W. Lloyd said the anterior strictures might be divided with a blunt-pointed bistoury; in cases of penile and scrotal fistulæ he had good results by finding with the strictest search the exact position of the narrowing and dividing as above. In suppression of urine he preferred oil to turpentine enemata, as he considered the latter liable to increase kidney congestion.

Dr. Thorowgood mentioned the case of a man with perineal fistulæ and stricture; as the stricture was dilated, the fistula healed. In suppression of urine he agreed with Mr. Edwards in not advocating the checking of vomiting and purging. He had found uræmic convulsions come on when vomiting ceased.

Mr. Martland Thompson enquired as to the *rationale* of enemata in suppression; he treated these cases with the hot-air bath.

Mr. Bruce Clark asked if there were any congenital strictures other than preputial and those at the meatus. In treatment of stricture at the meatus careful dilatation was necessary after division. He was of opinion that more deep strictures could be cured without division than was generally supposed. He thought that if the strictures now submitted to internal urethrotomy were treated by external cutting the results would be better. He had seen the temperature rise more after internal urethrotomy, and thought the risk of urinary infiltration greater. He considered external urethrotomy with antiseptic irrigation of the bladder a very useful mode of treatment.

Dr. Alderson was in favor of internal urethrotomy. Anterior strictures often lead to deep-seated ones.

Mr. Lunn thought the cases which required external urethrotomy were those where there was atony of the bladder with pus in the urine. He asked about the use of cocaine in the internal operation.

Mr. Weiss agreed with Mr. Edwards as to the unadvisability of divulsion. He asked how Mr. Edwards got cocaine past the stricture. He objected to the tying in of metal catheters.

Dr. Boyce Barrow had used silver instruments for years, and thought dilatation by them much preferable to internal urethrotomy. He also, notwithstanding the great improvements in soft instruments, thought the silver ones conveyed tactile impressions much better.

Dr. Thudichum thought the screw-ended filiform bougies gave a very good impression to the

hand. He thought hospital cases as a rule very different from those met within private practice. He did not agree with giving aconite to prevent rigors, and thought aconite a poison and of no therapeutical value internally, as there could be no accuracy of dose. Preparations made by the same makers were sometimes seven hundred times as strong as others professing to be of the same strength.

Mr. Menzies inquired as to the use of anæsthetics.

Dr. Campbell Pope spoke of the value of tying in a small soft instrument in commencing the treatment by dilatation.

Mr. Percy Dunn remarked upon the importance of rest in allaying spasm.

Mr. Alderson mentioned the great benefit to the patient of soft instruments, owing to their giving less pain. Rest and opium were very important factors in the treatment after urethrotomy.

Mr. Edwards, in reply, stated that in cases of suppression of urine it is a good practice to give a brisk purgative at the outset, to be followed, if necessary, by turpentine enemata. Although turpentine when administered by the mouth produces renal congestion, and its use would seem to be contraindicated, it was often useful by enema, and was probably not absorbed, acting only as a stimulating purgative. It is highly important when the kidneys strike work to get this done by the excretory organs. In answer to Mr. Lloyd, he said that dilating urethrotomy was more exact and easier of manipulation than the use of the bistoury for dividing anterior strictures. He agreed with Mr. Bruce Clark that incisions of the meatus required constant attention to prevent re-contraction, but differed from him in his views concerning the treatment of deep-seated strictures, believing external urethrotomy to be a much more serious and risky operation than internal, and the after results to be no better, if as good, to say nothing of the prolonged treatment in bed. As to treatment by continuous dilatation, advocated by Dr. Alderson and Mr. Boyce Barrow, he remarked that the former gentleman was judging from two isolated cases; for his own part, he had abandoned continuous dilatation, and now never kept an instrument in the urethra for dilating purposes for more than an hour or two. Concerning Mr. Barrow's predilection for tying in a silver catheter, he was astonished to hear this advocated in the year 1885, and looked upon it as a harmful and antiquated proceeding. He agreed with the remarks as to the importance of rest in impassable strictures, these often becoming passable after a day or two in bed with hot-air baths, opium or belladonna suppositories, or failing these, ether or chloroform should be given. In conclusion Mr. Edwards said, in stricture cases accompanied with cystitis and atony, where Mr. Lunn proposed external urethrotomy, he would puncture the bladder either above the pubes or through the prostate. This, by relieving pressure and setting the urethra at rest, would improve the condition of the stricture. These cases do not bear a cutting operation well. Mr. Edwards showed various instruments, viz., Harrison's, Voillemier's, Trelat's, Teevan's, Maisonneuve's, Civiale's, Watson's, and Thompson's urethrotomes, and called special attention to the corkscrew filiform guide or pilot bougie.

The Treatment of Tapeworm.

Dr. James Tyson thus writes in the *Med. News*, March 7, 1885:

There is, perhaps, no one condition which has brought more opprobrium upon the medical profession and more "grist to the mill" for quacks, than tapeworm, and to our humiliation it must be said that quacks do seem to have more success in getting rid of tapeworm than we do. There are, I think, two reasons why this is so. In the first place, it is certain that they do not use different remedies from those commonly in use by the profession, but they give larger doses. In the second place, they see a large number of cases and develop a sort of specialty, which, like all specialties, produces greater skill in treatment. When I say quacks, I mean more particularly advertisers and those who use secret remedies; for in their treatment of tapeworm, they undoubtedly use remedies which experience shows to have been useful.

In order that a tapeworm may be successfully treated, it is necessary that it shall have a certain size; so that if a large part of the worm has been brought away by medicine, it is useless to give anything more until the remaining part increases sufficiently in size.

There are half a dozen remedies for tapeworm, and they are all good. I think that the two best are probably the ethereal extract of male fern and kooso. Some prefer the first of these, while others prefer the second. In my hands, kooso has been decidedly the most efficient—that is, having failed with everything else, and having succeeded with kooso, it has naturally become the remedy with which I always begin the treatment. It is the dried flowers and immature fruit of the Brayera anthelmintica, a tree native to Abyssinia. It is given in the form of a powder, and the only objection to it is its bulkiness. The dose is laid down as a half to one ounce of the powder in half a pint of water. I prefer to give the larger dose, for it is harmless, except in pregnancy, and I am sure that failures are often due to the smallness of the dose administered. Kooso is said to have produced miscarriage; therefore, it should not be given to pregnant women.

Patients require some preparation before any remedy is employed. I always tell them to eat nothing from noon of one day until the next morning, when one ounce of kooso in half a pint of water is directed to be taken. If at the end of six hours no movement of the bowels has taken place, a promptly acting aperient, as a dose of oil, compound jalap powder, or elaterium, is taken, but generally kooso requires no purgative after it. This usually brings away the worm entire Of course, you are never certain that you have the entire worm until you find the head. At the same time, it does not follow because the head cannot be found, that you have failed to remove it, for it is very small, and may have been lost in the discharges. As I have said, in the tænia solium the head is about the size of a small pin's head; in the medio-canellata, it is somewhat larger, and in the bothriocephalus latus it is still larger. If the head has not been removed, you may be certain that in a certain length of time the worm will grow out again. This varies from ten to sixteen weeks.

Instead of kooso, the resin which it contains, called *koosin*, may be given; but I have had no experience with it. The dose is 20 to 40 grains enclosed in a wafer.

The next remedy in efficiency is the ethereal extract of the rhizome of Aspidium filix mas, whose active principle—an oleo-resin—is extracted by ether. The preparation of the patient is about the same as for kooso. The dose is half a fluidrachm to a drachm. The larger dose should be given. It is a dark, thick liquid, bitter, slightly acrid and nauseous. Instead of the ethereal extract of male fern, the oil may be given in a gelatine capsule, which is the best vehicle for these unpleasant oils. Six or eight hours later, a dose of purgative medicine should be administered. An important point to be borne in mind is the varying quality of these drugs, and that they deteriorate with age.

The next remedy in order of efficiency is the bark of the root of the pomegranate. This has been given in the shape of a decoction, about two ounces to the pint, and the dose is a pint. Recently there has been introduced an alkaloid obtained from pomegranate, named pelletierine, in honor of the chemist, Pelletier. This is sold in a single dose, the price of which is, I believe, three dollars. When first introduced, it was vaunted as a "sure cure;" but the experience of practitioners in this city has not been uniform, and success has been by no means invariable. Very recently, however, I have known a case to have been successsfully treated with pelleteriene after all else had failed, including large doses of turpentine, and including pelletierine itself. When successfully used, the dose of pelletierine was given after twenty-four hours' fasting and no preliminary purgation. In fifteen minutes afterwards, one drachm of compound jalap powder was taken. In an hour and fifteen minutes, the entire worm, including the head, was passed. When pelletierine was unsuccessfully used, it was preceded by a day and a half fasting, during which two doses of castor oil were taken.

Kamala, the hairs of the Rottlera tinctoria, is said to be very efficient in tapeworm, but I have had no experience with it. It is given in doses of from one to two drachms suspended in syrup, repeated in eight or ten hours if it do not purge. It is purgative, sometimes drastically so. It may also cause nausea and vomiting.

Another remedy, which is an excellent one in this affection, is oil of turpentine. At the same time, it is apt to produce such unpleasant symptoms that it would be the last which I should use. The dose is from an ounce to two ounces mixed with twice that amount of castor oil.

The last remedy which I shall mention is pumpkin-seed. This was used very commonly some twenty years ago. It was the remedy which I always used until frequent failures induced me to give it up. There are two ways in which it may be given. Two ounces of the seeds may be crushed in a mortar with water, then strained, and the emulsion taken fasting, the patient having dieted the previous day. A few hours later, a brisk purge should be taken. Or the seeds may be made into an electuary, which is almost as pleasant as sugar candy, and often is about as effectual.

I should place these different remedies in the order of their efficiency as follows: kooso, male fern, pomegranate and pelletierine, kamala, turpentine, and, lastly, pumpkin-seed. I am inclined, however, to give pelletierine an early trial, in consequence of its recent successful use in the manner referred to.

I have already stated that it is important to know the variety of worm present for the purposes of prognosis and treatment. The easiest of these worms to dislodge is the bothriocephalus latus, because it has neither the hooklets nor the rostellum of the other varieties. The next in ease of removal is the tænia medio-canellata, which, although it has the four suckers, lacks the hooklets which give the tænia solium its firm anchorage. Of all the forms of tapeworm, the most difficult to dislodge is, therefore, the tænia solium; for it not only has the four suckers, but also the double row of hooklets. I believe, however, that if a more active course of treatment than is usually recommended be pursued, our efforts will be more successful.

Cocaine in the Vomiting of Pregnancy.

The *Therapeutic Gazette*, March 16th, says that the recently published reports of the great anæsthetic and reflex-inhibitory action of cocaine has led Dr. Weiss, of Prague (*Prager Med. Woch.*, 17th Dec., '84), to exhibit the drug in a case of persistent vomiting in pregnancy, after all other attemps at relieving this inconvenient and often dangerous symptom had proved futile. The patient was a woman of 28 years of age, in the third month of pregnancy, and of a nervons disposition, anæmic and debilitated. Persistent vomiting had been a constant symptom in her three preceding pregnancies, and threatened this time to result in inanition. Dr. Weiss prescribed:

℞. Cocain. mur. in suff. quant., spir. vin. solut., gr. ij.
Aquæ dest., f. ℥v.
S.—Teaspoonful every half hour.

Three tablespoonfuls of milk given after the sixth dose, were well borne, likewise a cup of broth with egg after the eighth dose, without the occurrence of vomiting. The frequency of the pulse being increased from 84 to 96, that of the respiration from 22 to 28 per minute, the pupil becoming dilated and the face flushed, it was thought prudent to withdraw the drug after the sixteenth dose, although the patient felt greatly improved, having even just previously enjoyed a meal consisting of chicken-broth, some slices of white chicken meat, and a glass of Bordeaux wine, without vomiting. Hourly doses of cocaine given subsequently suppressed the vomiting completely, and enabled the patient to regain her former strength. Weiss stating the patient to be of the nervous and hysteric type, and that the drug was announced as a certain cure to the woman, the question arises, whether we have to deal here with an actual specific against persistent vomiting in pregnancy, or whether the moral effect of the drug on the patient is entitled to a prominent consideration in the case. Skepticism is not out of place in therapeutics, but it would appear unwarranted to deny the value of a

remedy in the face of immediate and obvious benefit produced by its application. Besides, the well-known anæsthetic and reflex-inhibitory influence cocaine exercises over mucous membranes would, *a priori*, from theoretical grounds, at least, justly advocate its exhibition in cases of vomiting.

Looking over the literature of coca and cocaine, we find that the remedy has been used ever since the 16th century against various affections of the digestive and nervous system, especially by the natives of Peru. Clusius (Exoticorum libri decem.) states that the Indians answered his question, why they were fond of chewing coca, "because it drives away hunger and thirst, strengthens the body and invigorates the mind." Martius, Fränkl, Töpig, and Tschudi, all agree in the tonic effect of the drug on the nerves of the stomach. Anrep found cocaine to act as a paralyzant of nerve centres and nerve termini, first lowering, and finally suspending reflex action. Frohnmüller experimented with cocaine to ascertain its narcotic properties in phthisis, hysteria, glaucoma, and rheumatism, but with alleged negative results. Cocaine was first discovered and experimented with by Nieman, in 1859.

It is to be hoped that Dr. Weiss's case will lead to further trials of cocaine, not only in vomiting of pregnancy, but also in other pathological processes where nervous excitation is the causative agency of the affection.

Favus in an Infant.

Dr. Kate Parker reports the following case in the *Jour. Cut. and Ven. Diseases*, February, 1885:

Robert Berry, healthy, well-developed infant, born March 19, 1883, weight at birth six pounds two and one-half ounces. Mother primipara, twenty-three years of age, always healthy. No family history of skin disease. A few days after birth, a red spot was noticed on right side of infant's head, circular in form, about five lines in diameter. Did not increase in size or present any characteristic appearance for the first four weeks after birth, when a small yellow cup-like disk, having well-defined border, appeared in centre. This gradually increased in size and was followed by others. No treatment was given until infant was seven months old; at this time the original spot had increased somewhat in size, and in addition had sent out a spur-like prolongation posteriorly, eight lines in length by two in width. This, as well as the circular spot, was covered with favi of varying size, numbering in the aggregate fifteen.

At this time the patient was first seen by Dr. Piffard, who pronounced it a case of favus, and confirmed the diagnosis by making a microscopical examination of one of the cups, finding the Achorion Schœnleinii in abundance. Treatment.—Removal of crusts. Painting surface with tincture of iodine. This was continued at intervals of from two to three weeks, according to appearance of favus cups; the surface affected gradually becoming smaller and intervals longer before the appearance of the favi.

Seven paintings in all were resorted to, when the cups entirely disappeared, leaving a slightly reddened surface. At this time the little patient left the asylum and passed from observation.

Reviews and Book Notices.

BOOK NOTICES.

The Invalid's Tea-Tray. By Susan Anna Brown. Pp. 67. Boston: James R. Osgood & Co., 1885.

This very neat little book presents a number of receipts for special diet, carefully selected by a person of practical experience, and well calculated to tempt the fastidious taste of an invalid. It has a number of just such suggestions as it is well for the physician to have in his memory, and we commend it heartily to him to whom it is dedicated—"the family physician."

Handbook of the Diseases of the Skin. Edited by H. von Ziemssen, M. D., etc. Illustrated with 80 wood engravings and color prints, 4to., pp. 658. New York: Wm. Wood & Co., 1885.

This work is issued under peculiar conditions. In one sense it is a gift book, inasmuch as a copy of it is to be presented to every original subscriber to Ziemssen's *Encyclopedia of the Practice of Medicine* who will send his present address, together with his address at the time he subscribed, to Messrs. Wood & Co., providing, as we understand, that such original subscriber has completed his set.

It will be remembered that the portion on diseases of the skin of that large work was not prepared in Germany when the remainder was published. Already the material had considerably exceeded what the subscribers expected or the publisher in America had anticipated; and there was considerable dissatisfaction expressed by the profession here at the elephantine proportions of this cumbrous work, much of it of very little practical use. As the work had turned out a brilliant financial success, the publishers concluded to satisfy the subscribers by presenting them the final volume, when it should be ready; and this is the volume before us.

It is a valuable work and a handsome gift. Its pages include contributions by Prof. H. Auspitz, of Vienna; Dr. V. Babes, of Budapest; Prof. E. Geber, of Klausenberg; Dr. E. Lesser, of Leipzig; Dr. P. Michelson, of Königsburg; Prof. A. Neisser, of Breslau; Prof. E. Schwimmer, of Budapest; Dr. P. G. Unna, of Hamburg; Dr. E. Veiel and Dr. Th. Veiel, of Cannstatt; Dr. A. Weyl, of Berlin; and Prof. H. v. Ziemssen, of Munich; the whole being edited by H. v. Ziemssen; covering 646 pages, to which is added a full index.

The publishers have spared nothing in the outfit of the volume. The illustrations, of which

there are eighty, have been prepared with every regard to accuracy, a number of them being colored so give a more vivid idea of the nature of the case illustrated.

Its shape and general appearance have been made somewhat different from ordinary medical publications, to distinguish it as a book prepared expressly for presentation, and not as a commercial venture.

A Practical Treatise on Nasal Catarrh and Allied Diseases. By Beverly Robinson, M. D. Second edition. Illustrated. Pp. 276. Wm. Wood & Co., New York.

The present edition of this work has been thoroughly revised and five chapters added on aural complications, coryza, nasal polypi, deflections of the nasal septum, ulcerous coryza, and adenoid vegetations of the pharynx. The wood-cuts have been increased, so that at present they are 152 in number. These improvements and additions render it one of the most complete treatises in the language on the subject of which it treats.

Modern Therapeutics of the Diseases of Children. With Observations on the Hygiene of Infancy. By Joseph F. Edwards, M. D., etc. 1½ vol., 8 vo., pp. 346. Price, cloth, $3.00; sheep, $3.50. Philadelphia, 1885. D. G. Brinton.

Of all branches in medicine, there is probably none which more certainly wins a way for a practitioner to an eligible family practice, than a skilful knowledge of the treatment of diseases of children. They are the members of every household who are most subject to sickness, and also those who most excite the sympathy and attention of the other members. For this reason the work before us merits the special attention of our readers. We believe it is the only work which has been written with the object of systematically examining the whole field of the therapeutics of the maladies of childhood. The author has extended his researches into the periodical literature of the topic, as well as into the separate monographs and essays on the branch, and there is little which has escaped his observation.

The earlier chapters are devoted to the clinical examination of children, their alimentation, mental diseases and malingering, school hygiene, diet, artificial alimentation, general therapeutic observations and special therapeutic methods, etc.

After these valuable introductory pages, the therapeutic methods applicable to each disease are discussed—the alphabetic order of the diseases being followed as most convenient for prompt reference. Under each a number of formulæ are given, and a large variety of general therapeutical directions. The list of diseases is very complete, and the reader will rarely be at a loss to find in this compact volume all of practical importance that he could discover in wading through a dozen heavy treatises. In these days such judicious synopses of the whole of the medical literature bearing on a branch of such every-day practice, cannot fail to be welcomed by the profession.

On the Wasting Diseases of Infants and Children. By Eustace Smith, M. D., etc. Fourth edition. New York: Wm. Wood & Co.

Dr. Smith's monograph has long held a respected position in medical literature, and though narrow in its scope, is always instructive as far as it goes. This edition forms part of Wood's *Library of Standard Medical Authors*, and will be a satisfactory number to those who do not already possess the work.

A Treatise on Amputations of the Extremities and their Complications. By B. A. Watson, A. M., M. D., etc. Illustrated. 8vo., pp. 762. Price, cloth, $5.50. Philadelphia: P. Blakiston, Son & Co., 1885.

A quarter of a century unceasingly devoted, as the author tells us, to the study of amputations, certainly constitutes a good claim to an exhaustive knowledge of them, and justifies the preparation of the work before us. It indicates on every page that it is the result of a conscientious survey of the subject, both as it appears in the records of surgery, and as it presents itself in the clinical practice of hospitals.

The volume begins with a brief sketch of the historical development of amputation of the extremities, and then proceeds to discuss the various conditions which affect their results, such as age, habits, surroundings, etc. The various methods are then described, and the treatment of amputation wounds considered. A valuable chapter is devoted to the selection and application of artificial limbs, a subject about which there is a good deal of haziness in the minds of most physicians. The last three chapters are occupied with the complications of wounds, as pyæmia, septicæmia, secondary hemorrhage, erysipelas, etc.

The book is abundantly illustrated with more than 250 wood-cuts and several full page colored engravings. It will undoubtedly take its stand as the classic authority on the topic of which it treats for a long time to come.

—A two per cent. solution of hydrochlorate of cocaine has been used by Dr. Weiss, of Vienna, to control the pain of severe burns.

THE

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A WEEKLY JOURNAL,

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OF

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PROFESSIONAL ADVERTISING.

It has been suggested, in a jocular way, that it would be a good idea to establish in the American Medical Association, a section on "Professional Advertising."

The suggestor very truly said that our profession has become so crowded, and our methods of "doing business" so changed from what they were in times gone by, that the fact is that the man who knows best how to advertise himself, and not he who is most thoroughly acquainted with the doctrines of his profession, is the man to command the patronage of the ailing and to grasp in the filthy lucre.

That such is true, we all know; but that it is censurable, we very much doubt. The dignity and respectability of a regular and good physician ought never to be lowered by any voluntary act on the part of any member of our profession; but doctors must eat, wear clothing (generally, in the latest, most approved, and most expensive styles), have a bed to sleep on (even if it is a sofa, bed, or a cot), in a word, they must have, at least, the necessaries of life, if not some of the luxuries, to which, if properly gauged, they are much more entitled than any other class of gentlemen in society.

Since the doctors must have the necessaries of life, and since tradesmen are so *hard-hearted* and so *unreasonable* and so *unjust* as to expect, aye, even to *compel* doctors to pay for their necessary commodities; and since doctors cannot perform miracles; since they cannot change air into money; since they cannot even change their fund of knowledge (acquired after years of labor and expense into money, unless the public are aware of the fact that they possess this ability; therefore does it become as necessary for the medical man to advertise his ability and skill as for the huckster to note his fine potatoes, asparagus, and strawberries, or for the monopolist haberdasher to call attention in *clarion* tones to his assortment of goods for the ornamentation of the body.

"Quack medicine men," many of whom are regular graduates of medicine, emerging into the profession from the best colleges in the land,

thoroughly realize the gullibility of human nature, and by flaming advertisements not only prey, so to speak, upon the vitals of humanity, but fill their pockets at the expense of their dupes.

We do not mean to advertise quack medicines—far from it; but what we do mean to say is that in this age of strife, competition, and overcrowding, the majority of the men who are at the head of our profession have reached the pinnacle of popular estimation rather more by popular and proper methods of advertising than by other means. Let a man hide his light under a bushel-basket, and who knows that a light is burning? Let a man be ever so qualified to combat disease and death, but if nobody knows it how can his services be appreciated, and how can he in return receive (as the reward of his services) the money (the supposed and often-called root of all evil) necessary to satisfy the demands of the "butcher, the baker, and the candle-stick maker." Seriously speaking, we believe that in the overcrowded position of the profession to-day, the abilities of a single man are very apt to be overlooked, unless he emphatically calls attention to them. He should not promise what he knows he cannot accomplish; he should not blazon to the world that which in his inner consciousness he knows to be untrue; but when thoroughly qualified, and with an intelligent understanding, believing that he can treat disease as well as his neighbor, then if he does not "blow his own horn," he can rest assured that no one will blow it for him.

One of our most accomplished physicians in this city, after graduating (classically) at Yale, in medicine at the University of Pennsylvania, passing a term of eighteen months in the Pennsylvania Hospital, and studied for three years under the great Nelaton, coming back to this city, told his father (a distinguished practitioner of this State) that he did not yet feel capable of treating disease as ably as *any one*. Going back to Paris, he went under his old tutorship for two years more. He then returned and entered practice.

Would not such a man be entitled to "*blow his own horn?*" But, he did not; and many less capable men, as a consequence, have risen to much greater prominence.

While we would thoroughly deprecate any *quack* or illegitimate methods of advertising, yet we must feel compelled to say that while those who are looked up to as the leaders of the profession resort to refined, specious, and *respectable* methods of advertising, we see no reason why capable, younger members of the profession should not follow suit.

A STATE BOARD OF HEALTH NEEDED.

The necessity for a well-organized, well-paid, and authoritative State Board of Health, with sufficient funds at their disposal to enable them to properly and thoroughly carry out their proper intentions, has been amply demonstrated by the recent epidemic at Plymouth.

The disease was caused and kept up by impure drinking water; this much we know for a certainty. We know that within *sixty feet* of the mountain stream that supplies the reservoir of Plymouth, stands a shanty without any provision for its waste; and we know that the ground very perceptibly slopes from this shanty towards the stream, and that in this shanty occurred a case of typhoid fever. We know also that at certain times (when the mountain stream is not sufficient) water is pumped into the reservoir from the Susquehanna River, into which, less than three miles above, the city of Wilkesbarre has emptied its refuse. We know that such drinking water is a prolific cause of typhoid fever. And we know finally that, with an efficient State Board of Health, with proper authority, such epidemics would become very remote probabilities.

Plymouth is not the only town in the State that has been and is living over a mine of disease, ready to burst forth at the slightest provocation; our State, as many others, is sanitarily benighted; we need enlightenment; our people deserve, and ought to demand, protection to their health and lives; they pay taxes, and deserve this in return.

Let us realize that the Plymouth epidemic of typhoid fever has carried off the "Bread-Winners" principally, and that our city and neighboring towns are asked to contribute thousands of dollars to relieve the widows and orphans of these men, who have been practically *murdered* by the apathy of the authorities, who have failed to make provisions to protect them from their own ignorance of all sanitary laws.

Let us realize that we must have a State Board of Health, a Board so constituted and authorized as to furnish to its officers not only the power to examine into, but also the power and the ability (the money) to abate such nuisances.

Our State needs very badly a sanitary overhauling; and while such work cannot be done for nothing, the money it would cost would be many times saved in the demands made upon our *tax payers*, every once in a while, to come to the rescue of the widows and orphans of our destroyed *Bread-Winners*.

THE PLYMOUTH EPIDEMIC.

The terrible experience which has afflicted the town of Plymouth, deserves much more than mere passing notice. That a town of more than 7000 inhabitants, located in that portion of our great State, which contributes most largely to the wealth of the State, should be afflicted with such an epidemic, is one of the most crying outrages that we have ever heard of.

The wails of the widows and orphans of men who *ought* to be alive to-day; the despair of the fathers of motherless children that *ought* to be blessed with motherly care to-day, all testify strongly to the apathy or ignorance, or what is worse, the selfishness of our authorities.

The various reports received from Plymouth indicate that this epidemic was possible, aye very probable, of prevention.

The latest reports from Drs. French and Shakespeare, who went from this city to investigate the subject, speak of the epidemic as a true "Typhoid."

Rotten water—prairie-like formation of the site of the town, allowing no facilities for natural drainage—the dejecta from a typhoid patient, flowing directly into and contaminating the water supply—are all instances of such palpable negligence as not only to cause wonder, but to excite indignation; yes, to excite indignation and disgust with our authorities, who seem too narrow-minded to give us a State Board of Health.

With a properly organized and sufficiently remunerated health organization, such epidemics as this could not occur.

Notes and Comments.

Two Cases of Fracture of the Astragalus, and a Case of Separation of the Upper Epiphysis of the Radius; Remarks.

Mr. A. W. Mayo Robson reports these cases in the *Lancet*, March 21:

Case 1. G. C., fitter, aged forty-eight, fell from a ladder, a height of eight or nine feet, alighting on his feet. On admission he was found to have a fracture of the left fibula, about the junction of the lower and middle third, with some injury to the foot. On flexing the joint crepitus could be felt indistinctly. On further examination a prominence of bone could be felt in front of the ankle-joint, between the malleoli. The width of the malleoli, measured by calipers, was increased, by a quarter of an inch as compared with the sound side. A line drawn from the posterior part of the internal malleolus to the tip of the heel, was a third of an inch less on the injured foot. The distance from the tip of the external malleolus to the floor was decreased by half an inch, and the circumference over the malleoli was increased by an inch and a half. He was in the hospital with the leg on a back splint from August 13 to September 6, when he was discharged with a plaster-of-Paris splint on. When he appeared as an outpatient on October 24th the movement of the affected ankle-joint was good, limited extension being the chief fault. There were still increased circumference of the ankle, and diminution of the distance between the malleoli and the sole.

Case 2. G. H., quarryman, aged thirty, fell from a plank distant some twelve feet from the ground, injuring the left foot. On admission, Oct. 9, 1884, there were swelling of the foot and ankle, greatly impaired movement, and some deformity. On flexing the foot to a right angle and pressing upwards crepitus could be felt. The whole foot appeared to be a little displaced forwards, so that

the heel of the injured side was slightly in advance of that of the sound side. The distance from the tip of the external malleolus to the floor was lessened half an inch, and a line drawn from the tip of the inner malleolus to the prominence of the heel was lessened by a quarter of an inch on the injured side. The circumference of the ankle was increased, and calipers showed the malleoli to be separated about one-third of an inch. He was treated on a back splint, the foot being brought into as good a position as possible. After three weeks plaster-of-Paris was applied, and he was made an out-patient. Two months afterwards there was fair movement in the ankle, but the increased circumference and diminished distance between the malleoli and the sole remained.

Case 3. A boy aged six was brought to the infirmary, the parents stating that they had noticed impaired movement in the arm during the last four months, but on closer inquiry it was elicited that he had been run over by a cart four years before, and had been at the time treated for a bruise of the arm. On admission, he complained of no pain, could flex, extend, and pronate the forearm completely, but could not supinate more than to place the hand in a line vertical to the floor. The ulna could be traced along its whole length, and the olecranon bore a proper relation to the condyles, which were normal. The head of the radius was in position, but immediately below it was a hollow. The radius could be traced obliquely across tho front of the forearm from below upwards and inwards, ending in a hard bossy mass, apparently callous, in front of and below the internal condyle of the humerus, where it rotated in its new position. It was diagnosed from dislocation of the head of the radius forwards by the detached head being felt in its normal position, and by the ability to completely flex the forearm. As the arm was very useful, and had apparently accommodated itself to the new condition, no treatment was recommended.

Remarks by Mr. Robson.—The points of interest are:

1. The occurrence, in the practice of one surgeon, of two cases within a short time of what is usually stated to be a rare accident; but, as Mr. Bryant remarks: "Fracture of the astragalus is probably more common than is usually thought, the injury, which is difficult to diagnose, being often overlooked."

2. The termination: a useful limb resulting in both cases.

3. The signs aiding in the diagnosis being—(*a*) Presence of crepitus on forcible flexion of foot; (*b*) absence of fracture of other bones of tarsus; (*c*) lessening of distance between the tips of the malleoli and the sole of the foot; (*d*) increased circumference of ankle; and (*e*) very slight separation of malleoli. The radial case is interesting on account of its extreme rarity, and as an illustration of what can be accomplished by unaided nature.

A Peculiar Skin Eruption in Typhoid Fever.

Dr. Alexander reports the following interesting case in the *Vierteljahrsschrift f. Dermat. u. Syphil.*, 1885, p. 115:

A robust man, æt. 20, suffering from typhoid fever, was placed, on the eleventh day of his illness, into a permanent warm bath to prevent the further progress of a very bad bed-sore. The next day the condition of the patient was decidedly improved, the bed-sore did not increase in size and gradually healed, but during the next few days there developed itself on the back of the patient a daily-increasing number of papules, which were from the size of a split pea to that of a five-cent piece, and had a peculiar brown color. These papules then formed pus in their centre, but retained for a long time their color and hard consistence, and they still were profuse when the patient finally left the clinic, completely cured of the typhoid fever, but by no means of the eruption. He refused, however, to remain longer in the hospital.

Dr. A. is of the opinion that this exanthem belongs, according to its anatomical as well as its genetic relations, to the so-called acne cachecticorum. Dr. Leivinski mentions in the *Centrlbl. f. d. Med.* that he has met with similar cases, but the papules neither so large nor so profuse as in Alexander's case. The bath can have acted only as an accidental exciting cause, for this kind of eruption has never been observed as a consequence of the permanent bath; there always existed some predisposing influence and generally a lowered state of the system at large, a cachectic condition of some kind. Most of the cases thus far reported happened near or during the convalescence from low fevers, especially typhoid fever, but never during the acme of the disease—an indication that it is probably due to disturbed nutrition and the poor state of the blood. The eruption has never occurred in mild cases of enteric fever, but the writer of this has once attended a case where, in consequence of a neglected hip disease, amyloid degeneration of liver and kidneys had developed itself in a child, that by the con-

tinuous drain of purulent matter, discharging from a number of sinuses at the hip, had been gradually brought into a cachectic condition. The papules here also showed themselves after the child, a girl æt. 9, had taken for one week a bath of salt-water once daily, each time for about twenty minutes. The baths were then discontinued, and first a local treatment, consisting of the application of zinc ointment and one per cent. of corrosive sublimate to the papules, and later the internal administration of Fowler's solution, were persevered in for a month, without, however, much influencing the papular eruption. At my advice the child was operated on, the diseased part of the bone removed, and the patient sent to the seashore, where she remained for nearly four months. It was not until the beginning of the sixth week of her sojourn near the sea that the papular eruption commenced to fade away. First the ulceration ceased and the skin disease completely assumed the character of lichen obtusus, each papule having a slight central depression. Later, the papules became less hard and paler, until finally, during the twelfth or thirteenth week of her residence at the seashore, nothing but a few spots were left, which somewhat resembled marks of mild cases of variola, with the only difference that but one central pit existed in each spot. By that time the general condition of the patient also had greatly improved, though this improvement was but a transient one, the amyloid degeneration evidently having proceeded too far ere the operation was performed to allow a speedy cure. Once more, frequent baths were ordered and taken, and the whole condition of the patient once more, and this time permanently improved, but the same eruption did not again make its appearance, the probability being that the nutrition in general and the state of the blood did not again become so much impaired as to produce that cachectic condition, a fact which seems to be essential for the development of this form of acne. Its presence or absence, therefore, may at times serve as an indication and factor upon which to base an otherwise doubtful prognosis.

Surgical Treatment of Hysteria and other Neuroses.

Though our knowledge of nervous diseases has recently made great strides forwards, it is mainly their diagnosis and prognosis that have reaped most benefit of modern researches. The treatment of many nervous affections still leaves to-day as much to desire as twenty years ago; if any advantage has accrued in this respect to the patient, it is the fact that he is less over-dosed than formerly was the case. We have reached in nervous diseases that great point, that we know when we can do nothing, and that is a great deal gained.

Hysteria, before all, as it enjoys its protean character regarding the manifestations under which it appears, so manifold are the remedies and the methods of treatment recommended for its cure. The gynecological treatment of the affection gains, however, daily more supporters, and as empirics will still have to show us the way for some time to come, it is well to try in this disease whatever experienced observers have found to be effective.

With this proviso, we mention an article of Dr. Flechsig in the *Neurol. Ztbl.*, 1885, Nos. 19 and 20, on the gynecological treatment of hysteria. F. is greatly in favor of castration, respectively of gynecological treatment in general in all cases of hysteria, hystero-epilepsy, and hysterical psychoses. The main stress must be laid upon the indications for an operation. If alterations are found in the genital apparatus, which, by way of reflex, may cause hysterical symptoms, the operation is demanded. Of special importance, according to F., is the after-treatment, for after the operation a relapse of the psychosis is generally to be expected.

To show the correctness of his views and the result of the operations, F. reports three of his own cases. We mention only the disease, the method of treatment, and the result.

1. A case of hysteria magna, with grave psychical disturbances. Castration. Complete cure.

2. Psychosis with hysterical symptoms. Fibroma uteri. Amputation of the supra-vaginal portion. Result good.

3. Hystero-epilepsy. Stenosis of the external os of the uterus. Bloody dilatation. Cure.

The tenor of the whole article indicates the probably correct opinion, that in cases of hysteria and of allied affections any morbid condition of the genital organs present ought to be remedied before a treatment of the hysterical or other nervous symptoms is instituted. This is not more than the rule, quite generally adopted to-day, that whenever in nervous diseases we are able to discover any disturbance, no matter where situated, but which by reflex may give rise to the neurotic phenomena, the lesion originating the reflex should first receive attention. If we find in a case of eclampsia a prolonged preputium, the operation for phimosis is as surely indicated as that of trephining in an individual, that without

any inherited tendency never suffered from epilepsy until one day an accident caused a fracture of the skull, since when epileptiform convulsions have appeared at irregular intervals. But just as little as in case of of an established cure after the trephining, we are entitled to recommend the operation as an infallible remedy in epilepsy, can castration or any similar surgical interference be advised as a means of cure in hysteria, hystero-epilepsy, or other similar neurosis. It is the physician's duty to discover, if possible, a tangible cause for any symptom, and if the local lesion really is responsible for the morbid condition, and is such that can be removed by the knife, then, and not until then, it is the surgeon's province to operate with the view of a cure of symptoms, that, though otherwise apparently not connected with the local lesion, seem to be produced by way of reflex.

Emetics.

Our forefathers were wont to use them much more than do their grandsons, and we are pleased to see that these staunch old remedies are again receiving recognition. Our therapeutics have become so æsthetic, so *awfully awful* and so *utterly utter*, that we are apt to look with disdain (more than we ought to) upon the good old remedies with which the gold-headed-cane doctor combatted disease. Calomel and senna are mighty good friends, and we must not *cut* them. We are pleased to see that before the Harveian Society of London—(March 5th)—Dr. C. J. Hare read a paper entitled "Emetics; their present Neglect in the Treatment of Disease; Is it Reasonable? Is it Right?" The subject of the communication was one of the numerous points referred to in a previous address on "Good Remedies out of Fashion," (to which we have some time since referred). He said, although not a panacea, in certain cases emetics cured in a marvellously short time; and in others they alone appeared capable of saving life. The author passed in review the various members of this group of drugs, and their doses. Speaking generally, ipecacuanha was the most useful, in doses of twenty to twenty-five grains of the powder mixed with water, or of six to eight drachms of the wine. Now and then, purgation resulted instead of emesis; but persistent diarrhœa was never set up. The chief value of emetics consisted in their mechanical action upon the viscera; the stomach was not only emptied, but its innumerable follicles were cleared by pressure, the lungs were compressed, and mucus forced out of the air-tubes, and the œsophagus, larynx, and fauces were swept clean. Allusion was made to cases of recurrent vomiting, commonly termed "bilious sick headaches," although more justly to be called "stomach-aches in the head." The persistent vomitings were endeavors of nature to expel the slimy mucus of the gastric follicles and the morbid ferments which it contained. The desired result was often at once effected by an emetic. Many anomalous ailments, accompanied by loss of appetite, nausea, the non-enjoyment of life, ill-temper, etc., were due to a similar cause, and similarly relieved. The removal of the ropy mucus was promoted by washing out the stomach by means of warm water, which excited additional vomiting. Emetics were sometimes of signal service in severe bronchitis, and in capillary bronchitis; the fear of "exhaustion" being produced by emetics was almost confined to those who never administered one. Attacks of catarrhal croup might be cut short, in children, by half a teaspoonful of antimonial wine; and in membranous croup, expulsion of the tough exudation was sometimes effected. Emetics were useful in the early stages of continued fever, of scarlatina, and of measles, and in some cases of whooping-cough. They were decidedly beneficial in the treatment of delirium tremens, and also in acute mania. By the same means, the paroxysms of ague could be greatly modified, and either arrested, or rendered more amenable to quinine. Drugs and diseases bore much the same mutual relation as in former ages; and as emetics were then found useful, so they would be now, if fashion did not prevent their employment. In the discussion which followed, Dr. Day referred to the value of emetics in whooping-cough, and Dr. Cleveland insisted upon the necessity for caution, which he had learnt by experience, and pointed out that the more habitual use of purgatives in recent practice, had greatly lessened the need for emetics.

Prolapsus Uteri and Pregnancy.

The following case, which Dr. George B. Masson reports in the *Brit. Med. Jour.*, February 21, 1885, possesses sufficient of interest to be worthy of reproduction. He says:

"I was hastily summoned by the midwife, late one evening last month, to attend Mrs. W., a multipara, for a miscarriage. I found the patient, who is a weaver, and had been working up to within an hour of sending for me, in a semi-collapsed condition, and the uterus in a state of extreme prolapse—in fact, procidentia: the os uteri ulcerated, and the skin of both thighs, in

contact with the surface of the uterus, excoriated through friction. I found that she had been pregnant for four and a half months, and that the uterus had been falling by degrees until the third month; and at this time she would not have sought advice, had it not been for a gush of hemorrhage while working at her looms. Placing the patient in the horizontal position, with some difficulty I replaced the uterus into the normal position, and plugged. She had not felt the child move for some days, and the water had broken. I directed small doses of ergot, opium, and iron, to be given during the night. She spent a fair night, but had snatches of pain during the next day until 6 p. m., when I was sent for, and found that the plug and a large clot of blood had been driven out. The fœtus, between four and five months old, was soon born; it must have been dead some time, being horribly offensive. The placenta soon followed. The parts were then thoroughly washed out with a solution of Condy's fluid; and a good contraction having been obtained, the binder was put on. Iron and quinine were given internally, and antiseptic injections used morning and evening for four days. The temperature kept high for three days, with anorexia and a dirty-brown tongue; but, after the third day, the bad symptoms disappeared, and, on the sixth day, she said she felt better than she had done for years. From the fourth day, when antiseptic injections were discontinued, astringent injections were used until the twelfth day, at which time, the parts looking satisfactory, a large-sized ring-pessary was introduced, with good results.

"*Remarks.*—I have thought this case worth recording for three reasons:

"1. I do not read in the text-books where pregnancy can go on for such a time as in the present case, with the uterus in a state of procidentia.

"2. The pain, to which she must have become inured, must have been great. When I replaced the displaced organ, she exclaimed, 'I am in heaven; that pain in my back's gone.'

"3. The speedy recovery she made, when one considers that the fœtus had begun to decompose, is also remarkable."

The Nerve-System of Children.

In these neurasthenic days, when the offspring of the man of business worry and the woman of fashionable exhaustion are very apt to inherit a defective nervous organization prone to over-mental activity or to premature exhaustion, it is very important that we should know how to manage the nerve-system of children. Hence, we note the conclusion of an article by Dr. Francis Warner in the *Archives of Pediatrics* (April 15, 1885), who says:

"I hope enough has been said to enforce the doctrine that in every attempt to control brain action in children, or to aid its action, we need the two factors, nutrition, and forces acting upon the brain directing that nutrition.

"A less co-ordinated, steady, uniform kind of action may be desired; the child may be healthy, but stupid, fat, and very slow; strong, but inert. Town life, and more stimulating food may be needed here.

"As to articles of diet: *Meat*, broth, beef-tea, appear to produce a stimulating effect upon the nerve-system of children, increasing the quantity and brain-stimulating quality of the blood, it may be specially useful in some cases of dull-brained children; it is often less useful in epilepsy and in chorea.

"*Fat food* is very useful in chorea and for neurotic children; if these children will take bacon, butter, dripping, suet puddings, marrow from bones, and can digest them, much good usually results. Cream and malt is an excellent food here.

"*Farinaceous foods*, in contrast to meat, offer the choice of a dietary of great importance in practice. They are less stimulating, more quieting, less suitable to stimulate brain evolution, more suitable for cases of nervous excitability, especially if combined with fats; in such cases we want hydro-carbonaceous rather than nitrogenous diets.

"As to drugs of special use in nervous cases among children, a few words may be said about arsenic, bromides, and iron. The sedative characters of bromides are undoubted, and are of great value.

"Arsenic administered to children with their food has often appeared to me a great aid to nerve growth. Iron is useful in anæmic cases, the non-astringent preparations being the most suitable."

Correspondence.

A Case of Intra-Capsular Fracture of the Neck of the Femur.

Eds. Med. and Surg. Reporter:—

In a paper read by Dr. John B. Roberts, before the Philadelphia County Medical Society, and published in *The Polyclinic* of December 15, 1884, he reports a case of intra-capsular fracture of

the neck of the femur in a patient aged 70, with good recovery, and cites his case as going to prove that such injuries are not as hopeless as they are usually regarded.

On account of its similarity to the case reported by Prof. Roberts, I send you a report of the following, which came under my notice recently:

On Dec. 19, 1884, Dr. J. H. Stephenson, of Leesville, O., aged 68, in dismounting from his horse, fell to the ground, the weight of the body being received on his right hip. He was carried into the house, and I saw him about an hour after the accident. I made a cursory examination, but did not determine the exact nature of the injury. At his urgent solicitation, he was taken to his home, six miles distant, on a sled, over a rough and hilly road. I saw him again the next day, and made a more thorough examination. There were no external contusions about the hip, and by careful measurement I could detect no shortening. Suspecting an impacted fracture of the cervix femoris, my manipulations were made carefully, and no crepitation was elicited, but there was *marked eversion of the limb*, which could not be corrected without rotating the pelvis. I applied a flannel roller to the limb, and placed it in an old-fashioned fracture apparatus borrowed from a neighboring physician. . This apparatus was a sort of compromise between the ordinary fracture box and a Salter's cradle, and extended to the perineum on the inside, and by means of an extemporized addition, nearly to the axilla on the outside. The limb remained in this, with occassional examinations and redressing, five weeks, when the splint was dispensed with. At the end of the sixth week, the patient was able to walk about the room with the aid of crutches. Improvement has continued until the present time (April), and he can now walk without crutches, and can bear his entire weight on the injured limb. The foot remains permanently everted, and by measurement taken since his recovery I find there is about one-half inch shortening.

This case is of interest on account of:

1. The absence of most of the usual signs of fracture in this region.

2. The tardy appearance of shortening.

J. T. Beall, M. D.

Sherrodsville, O., April 20, 1885.

Amenorrhœa.

Eds. Med. and Surg. Reporter:—

Miss L., foreigner, age 25 years, came to United States 1879. Commenced to menstruate at 17; about twice first year; very irregular afterwards. Doctor advised the trip across the water, but it did not seem to help her condition any. General health very poor during all this time. Settled in Minnesota in 1880. During the last year of her residence in Minnesota she was somewhat more regular. Contracted cold in fall of 1880. She weighed at this time about 110 pounds. Came to Dakota the same winter, and has never menstruated since. Has violent headaches, severe pain in epigastrium, bowels regular, etc. Has a very healthy, rugged appearance, and weighs at present 155 pounds; has spells of dizziness. Was called yesterday for first time, as she had a fainting spell. I took about ten ounces of blood. She recovered consciousness. I then prescribed manganese, in pill form, gr. ij., twice a day.

I would like some of the older and more experienced members of the profession to give me their views, and also suggestions for good and well-tried treatment in such cases.

T. L. Taylor, M. D.

Lisbon, Dakota, April 6.

News and Miscellany.

Medical Society of the State of Pennsylvania.

The thirtieth annual session of the Medical Society of the State of Pennsylvania will be held in the Court House at Scranton, May 27, 28, and 29. The sessions will last from 9 a. m. to 5 p. m., with intermissions from 12 m. to 2 p. m.

The attention of members and delegates is called to the following rules of order:

Rule 1. *Order of Business.*—The order of business laid down by the Committee of Arrangements shall, when adopted, be rigidly adhered to unless suspended according to Rule 9. Any person not ready to respond when his name is called for a paper or report, shall forfeit his position in favor of the next on the list.

Rule 2. *Length of Time of Addresses, etc.*—The stated annual addresses shall not exceed in their delivery thirty minutes, and voluntary communications, reports, etc., shall not exceed twenty minutes.

Rule 3. *Unfinished Business.*—Matters unavoidably postponed, forfeited privileges, etc., shall come under unfinished business.

Rule 4. *New Business.*—All matters not upon the programme must come under new business.

Rule 5. *Exchange of Position on Programme.*—Members may exchange position upon the programme, the exchange to be announced at the reading of the first substitute paper, report, etc., the Secretary being notified in writing, and the same noted upon the programme of the President.

Rule 6. *Regulating Discussion.*—Discussion shall be in order immediately after the reading of a paper, but no person shall be allowed to speak a second time during a discussion until all desiring to speak have had an opportunity. No speaker shall be entitled to more than ten minutes, except the reader of the paper, report, etc., who shall be entitled to fifteen minutes in closing the discussion.

Rule 7. *Public Notice of State Society.*—Notice of the meeting of the State Medical Society, together with the programme, shall be made at least one month previous to the annual meeting; such notice to be published in the medical journals designated by the Committee of Publication.

Rule 8. *To be Especially Observed by the Committee of Arrangements.*—The terms *unfinished business* and *new business* shall form the last items of the programme for each morning and afternoon session.

Rule 9. *Suspension of Rules.*—The above rules shall not be suspended except for a definite purpose, a definite time, and by a two-thirds vote of the members present.

The Committee of Arrangements have selected Roberts's Rules of Order as the manual of parliamentary law to be followed in all cases not covered by the above rules.

PROGRAMME.

WEDNESDAY, MAY 27, 9 A. M.

Society called to order by the President, Dr. Ezra P. Allen, of Bradford county. Prayer by Rev. S. C. Logan, D. D. Presentation of register of delegates, by Dr. Wm. B. Atkinson, Permanent Secretary. 9:15. Address of welcome, by Dr. I. V. Everhart, Chairman Committee of Arrangements. Address, by Hon. Alfred Hand. Introduction of delegates from other societies, and of visitors not delegates. 9:30. Report of Delegates to the American Medical Association. Report of Delegates to the Medical and Chirurgical Faculty of Maryland. Report of Delegates to the Ohio State Medical Society. Report of Delegates to the New Jersey State Medical Society. Report of Delegates to the West Virginia State Medical Society. Report of Delegates to the Delaware State Medical Society. Report of Delegates to the Massachusetts State Medical Society. Report of Permanent Secretary concerning last meeting, etc. Report of Corresponding Secretary. Report of Correspondents of Library of Medical Society of State of Pennsylvania. Report of Treasurer. Report of Committee of Publication. Report of Medical Examiners of County Societies, giving number examined. Report of County Medical Societies. Report of Committee on Appeal of American Anti-Vivisection Society. Report of Committee on State Board of Health. 11:15. Consideration of Amendment to the Constitution, presented by Dr. O. H. Allis. (See page 46 of Minutes of 1884.) Reports of Committees on Statistics, as per resolution of May 10, 1883. Report of Committee on Medicine. Unfinished Business. New Business.

INTERMISSION, 12 M.

2:00. Address on Mental Disorders, Dr. S. S. Schultz, Danville. 2:40. Address on Hygiene and State Medicine, Dr. J. G. Richardson, Philadelphia. 3:30. Calling on delegations for members of Nominating Committee. Address in Otology, Dr. Chas. S. Turnbull, Philadelphia. Reading of Voluntary Papers in the following order: Diagnosis of Cataract, Dr. Edward Jackson, Philadelphia; Some Points in Ophthalmology which may be of interest to physicions engaged in general practice, Dr. F. D. Castle, Philadelphia. Unfinished business. New business. Adjournment at 5 p. m.

8:00. Reception at the "Wyoming." 9:00. Banquet given by the Lackawanna County Medical Society at the "Wyoming."

THURSDAY, MAY 28, 9 A. M.

Prayer, Rev. David Spencer, D. D. Announcement of the Nominating Committee. 9:20. Report of Committee on Medical Education, Dr. Edward Jackson, Philadelphia. Discussion. Unfinished business. New business.

INTERMISSION, 12 M.

2:00. Report of Nominating Committee. 2:15. Address in Medicine, Dr. Edw. T. Bruen, Philadelphia. Reading of voluntary papers in the following order: "Non-Contagiousness of Cholera," Dr. Henry H. Smith, Philadelphia. "A New Treatment of the Alcohol Habit," Dr. W. F. Waugh, Philadelphia. "Morphia in Cholera Infantum," Dr. Spencer M. Free, Dagus Mines. "Dermatitis Medicamentosa (Eruptions Due to the Ingestion of Drugs)," Dr. Arthur Van Harlingen, Philadelphia. "Soaps Especially Medicated in Diseases of the Skin," Dr. John V. Shoemaker, Philadelphia. Unfinished business. New business.

ADJOURNMENT AT 5 P. M.

5:30. Visit to Lackawanna Hospital on invitation of the Board of Directors and Medical Staff. 8:00. Annual address by the President, Dr. Ezra P. Allen, Bradford county, at the Court House.

FRIDAY, MAY 29, 9 A. M.

Prayer, Rev. L. C. Muller. Address in Obstetrics, Dr. C. A. Rahter, Harrisburg. Reading of voluntary papers in the following order: "Mechanical Dilation of the Uterus," Dr. Charles Meigs Wilson, Philadelphia. 10:30. Address in Surgery, Dr. E. A. Wood, Pittsburgh. Reading of voluntary papers in the following order: "More Recent Experiences with Electric Light in Diagnosis;" "The Topical Uses of Earth," Dr. Addinell Hewson, Philadelphia. "'Nil Desperandum' in Spinal Caries," Dr. Benj. Lee, Philadelphia. "The Treatment of Palmar Abscess Panaris (Whitlow), and Other Inflammations of the Hand and Fingers," Dr. G. G. Davis, Philadelphia. Unfinished business. New business.

INTERMISSION, 12 M.

1:00. Reading of voluntary papers in the following order: "Osteotomy for the Correction of Deformities in the Lower Extremities," Dr. H. R. Wharton, Philadelphia. "Dislocation of the Shoulder," Dr. O. H. Allis, Philadelphia. "Retroflexed Splints for Fracture of the Forearm, Especially Colles Fracture, with Drawings and Samples," Dr. W. D. Kearns, Pittsburgh. Unfinished business. New business. Announcement of appointments for the addresses and committees for 1886. Adjournment, 4 p. m.

4:15. Excursion to the Mines, upon invitation of W. F. Halstead, Superintendent D. L. & W. R. R. Co.

LOCATION AND RATES OF HOTELS.

	Rate per Day.
The Wyoming, cor. Lackawanna and Wyoming avenues	$2.50 to $3.00
Forest House, cor. Wyoming avenue and Spruce street	$2.00
Lackawanna Valley House, corner Lacka. and Franklin avenues	$2.00
St. Charles Hotel, 130 Penn ave.	$2.00
Whyte's Hotel, 130 Franklin ave.	$2.00
Scranton House (European Plan), 206 Lackawanna ave., rooms	.50 to .75
Susquehanna House, 219 Wyoming avenue	$1.50

DINING ROOMS.

Kent's, 309 Spruce street.
Wm. Hanley's, D. L. & W. Depot.

Medical Society of New Jersey.

The one hundred and nineteenth annual meeting of the Medical Society of New Jersey will be held in the Ocean House, Long Branch, on Tuesday and Wednesday, June 9 and 10, commencing at 4 o'clock on Tuesday.

Every effort on the part of the Committee of Arrangements has been made to make the meeting a pleasant and profitable one, and it is to be hoped that its efforts may be rewarded by a large attendance.

The Ocean House and other hotels will be in readiness for the accommodation of guests.

Excursion tickets over the various railroads may be procured at the principal railroad stations.

The delegates (corresponding included) are invited to bring their families with them. The members of the profession throughout the State are cordially invited to attend the meeting, and also bring their families with them.

Orange, N. J. WM. PIERSON, *Secretary.*

PROGRAMME FOR TUESUAY.

FOUR O'CLOCK, P. M.

Prayer by Rev. E. B. Tompkins, of Long Branch.

Report of Committee on Organization, Secretary, Chairman.

Report of Committee on Arrangements, S. H. Hunt, Chairman.

Address of Welcome on behalf of the Physicians of the county of Monmouth, by Dr. S. H. Hunt.

Reading of Minutes of last annual meeting.

Report of Committee on Business, H. R. Baldwin, Chairman.

Report of Delegates to Corresponding Societies.

Report of Committee on Ethics and Judicial Business.

Announcement of Committees by the President.

Adjournment at 6:30 o'clock.

(The several delegations are requested to report to the Secretary, as early in the afternoon as convenient, the name of their member to serve on the Nominating Committee.)

TUESDAY EVENING, 7:30 O'CLOCK.

Annual Address by the President, P. C. Barker, A. M., M. D., "The Present Status of the Germ Theory of Disease."

Report of Standing Committee, T. J. Smith, M. D., Chairman. (Five minutes will be allowed to each delegate for remarks upon the same.)

Report of Treasurer, W. W. L. Phillips, M. D.

Report of Corresponding Secretary, Wm. Elmer, Jr., M. D.

Report of Committee on Unfinished Business.

Report of Committee on "Medical Jurisprudence, etc." E. L. B. Godfrey, M. D., Chairman.

Discussion upon subject suggested at previous meeting.

Adjournment.

PROGRAMME FOR WEDNESDAY.

NINE O'CLOCK A. M.

Essay—John W. Ward, M. D., Trenton Asylum, "General Paresis."

Essay—H. H. James, M. D., Rahway, "Toleration in Medicine."

Report of Committee on How to Prevent Unlicensed Persons from Practicing in the State, J. Parrish, M. D., chairman.

Report of Committee on Army Medical Museum, and Library of Surgeon-General's Office, B. A. Watson, M. D., chairman.

Report of Committee on Education, S. H. Pennington, M. D., chairman.

Report of Committee on Lunacy, Dr. Parrish, chairman.

Report of Committee on Treasurer's Account.

Report of Committee on By-Laws, S. Wickes, M. D., chairman.

Receiving and acting upon applications for degree of M. D.

Report of Committee on Honorary Membership, H. R. Baldwin, M. D., chairman.

Receiving and acting upon applications for honorary degree of M. D. and honorary membership.

Report of Committee on "Fellows' Prize Essay," S. Wickes, M. D., chairman.

Reception of delegates from corresponding societies.

Investigation of by-laws and communications from district societies.

Reading of such papers as approved by the Business Committee.

Reports of interesting cases.

Intermission from one to three o'clock, for dinner.

THREE O'CLOCK P. M.

Continuation of Last Order of Business.—Report of Nominating Committee. Election of officers. Miscellaneous business. Acting upon amendment to by-laws.

Ohio State Medical Society.

The fortieth annual meeting of the Ohio State Medical Society will be held at Dayton, Ohio, June 3d, 4th and 5th, 1885. The officers are:

President.—J. C. Reeve, Dayton.

Vice Presidents.—*E. B. Pratt, Mt. Sterling; B. W. Davis, Marion; D. J. Merriman, Painesville; J. F. Baldwin, Columbus.

Secretary.—G. A. Collamore, Toledo.

Assistant Secretary.—E. C. Brush, Zanesville.

Treasurer and Librarian.—T. W. Jones, Columbus.

Committee of Arrangements.—J. M. Weaver, E. Jennings, H. S. Jewett, A. H. Iddings, Geo. Goodhue.

The order of business will be as follows:

WEDNESDAY, JUNE 3D—2 P. M.

1. Call to order.
2. Report of Committee of Arrangements.
3. Business which requires early consideration.
4. Annual Reports of
   a Treasurer and Librarian.
   b Secretary.
5. Reports of Standing Committees:
   a Committee on Admissions and Medical Societies.
   b Committee on Finance.
   c Committee on Publication.
   d Committee on Legislation.

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* Deceased.

e Committee on Ethics.

6. Reports of Special Committees:

a Committee on State Board of Medical Examiners' Bill.

b Committee on General Collective Investigation of Disease.

7. Reports from delegates to the American Medical Association and other Societies.

8. Written Communications on Medical Subjects:

a "Pelvic Hematocele:" C. A. L. Reed, M. D., Hamilton.

b "Uterine Hemorrhage and its Treatment:" J. W. Hoff, M. D., Pomeroy.

c "Rare Complication after Ovariotomy:" C. D. Palmer, M. D., Cincinnati.

THURSDAY, JUNE 4TH—MORNING SESSION.

1. Reading of minutes.
2. Reports of Standing Committees.
3. Papers:

d "Some of the Complications of Strangulated Hernia:" R. Harvey Reed, M. D., Mansfield.

e "Empyema:" Dan Millikin, M. D., Hamilton.

f "Vesical Explorations:" P. S. Conner, M. D., Cincinnati.

g "Cases connected with Life Insurance Examinations and Remarks:" I. N. Himes, M. D., Cleveland.

1. Reading of Minutes.
2. President's Address.
3. Election of Officers.
4. Selection of a place for the Next Meeting.
5. Reports of Standing Committees.
6. Papers:

h "Treatment of Spinal Irritation:" Geo. W. Ryan, M. D., Cincinnati.

i "Diseases of the Spinal Cord:" Philip Zenner, M. D., Cincinnati.

j "Diseases of the Skin of Reflex Nervous Causation:" W. T. Corlett, M. D., Cleveland.

FRIDAY, JUNE 5TH—MORNING SESSION.

1. Reading of Minutes.
2. Reports of Standing Committees.
3. Papers:

k A Paper, title not named: N. P. Dandridge, M. D., Cincinnati.

l "Occipito Posterior Positions:" H. G. Landis, M. D., Columbus.

m "Abdominal Sections:" Rufus B. Hall, M. D., Chillicothe.

n "Voice:" C. H. Von Klein, M. D., Dayton.

x Volunteer Papers.

AFTERNOON SESSION.

1. Reading of Minutes.
2. Reports of Standing Committees.
3. Written Communications on Medical Subjects.
4. Oral Communications.
5. New Business.
6. Unfinished and Miscellaneous Business.
7. Adjournment.

The sessions of the Society will be held in Y. M. C. A. Building, No. 30 East 4th street.

A competent stenographer will be in attendance.

Members will take notice that the meeting of the Society begins on Wednesday, and not Tuesday, as heretofore.

HOTELS.

Beckel House, $2.50 and $2.00; Phillips House, Dickey House, $1.50; Arlington House, $1.22 per day.

RAILROADS.

The following Railroads will sell *return* tickets to members and delegates, who have paid full fare to Dayton, at *one cent per mile*, on presentation of certificate of attendance, to be obtained from the Secretary at the meeting, viz.: C. H. & D.; Ohio Central; C. H. V. & T.; C. C. C. & I.; D. & U.; N. Y. P. & O.; D. & T. and D. & I.

The following Railroads will sell round trip tickets at *two cents per mile each way*, on presentation to local ticket agents of an order for the same, which will be furnished by the Secretary on application; viz: B. & O.; P. C. & St. L.; Penn. Co.

Corrigenda.

Two unfortunate oversights occurred in our proof-reading lately which we beg readers to correct. The article on "The Debauchee's Fear of Death," p. 636, should be credited to Dr. J. B. not L. B. Johnson; and on p. 388, the article continued is not that by Dr. Throckmorton, but that by Dr. J. B. Cory, from page 360.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended May 16, 1885.

Fessenden, C. S. D., surgeon. Granted leave of absence for thirty days, May 12, 1885.

Goldsborough, C. B., passed assistant surgeon. To proceed to Moss Point, Miss., for special duty, May 16, 1885.

Personal.

—Dr. C. C. Vanderbeck, of this city, has removed to 2131 Columbia avenue.

—Dr. Asa F. Pattee, of Boston, stated in his address before the last meeting of the American Medical Association, that he believed we have in resorcin an antiseptic superior to any yet known.

QUERIES AND REPLIES.

The Carbolic Acid Treatment of Piles.

Dr. W. M. S., of Arizona.—You will find a full account of the treatment of hemorrhoids by the subcutaneous injection of carbolic acid, the preparation of the solution and the precautions to be taken, in NAPHEYS' MODERN SURGICAL THERAPEUTICS, p. 316.

To Prevent the Rash from Quinine.

UNITED STATES INDIAN SERVICE,
OSAGE AGENCY, April 24, 1885.

MESSRS. EDITORS:—

In reply to W. P. M., in the REPORTER, April 19, I refer him to NAPHEYS' MEDICAL THERAPEUTICS, p. 340, ℞ 884, in which he will find a pill suitable for almost all cases where, from a peculiar idiosyncrasy, quinine is not tolerated by the stomach, and by the addition of lactopeptin he will have his quinine digested, and not remain in the stomach as an irritant.

T. L. CRAIG, M. D.,
Agency Physician.

THE

MEDICAL AND SURGICAL REPORTER.

No. 1474.] PHILADELPHIA, MAY 30, 1885. [Vol. LII.—No. 22.

ORIGINAL DEPARTMENT.

LECTURE.

SANITARY IGNORANCE AMONG HIGH AND LOW.

BY ALBERT L. GIHON, A. M., M. D.,

Medical Director United States Navy, President of the American Academy of Medicine, Ex-President of the American Public Health Association, etc.

(*Continued from page* 645.)

But we need not cross the border to seek among our neighbors for instances of sanitary ignorance. Here is what a medical inspector, after a thorough sanitary inspection of the schools of a city not so far from Washington, that the language, habits and culture of its people are different, found only last year: One school in a cheerless building with badly arranged distribution of light; in a second, light not well arranged, pupils face the windows and have to struggle against a constant glare—privy-well located so close to the building that the rooms near it are rendered very offensive by the foul odors that enter when the windows are opened, which is a matter of constant necessity whenever ventilation is required,—heated by furnaces supplied by cold air from the cellar; a third was located in an old dwelling, without a single redeeming feature about it as a schoolhouse; in a fourth, wells in the yard about twenty-feet deep, and tapped to the sewer about eight feet below the surface, thus leaving a large cess-pool twelve feet in depth which is not drained off—cellar damp, unpaved, dirty and unwholesome; in a fifth, from the close proximity of the privy-well to the school there was a leakage into the cellar—this well is drained into the sewer with an outlet pipe above the level of the cellar-floor, and all the yard and house drainage is into this well; in the sixth there were the same offensive latrines close to the building, and the heaters derived their supply of air from a filthy cellar; in a seventh, one room furnished only seventy cubic feet of air to each pupil, and had but one window; an eighth was overcrowded, and had nothing to recommend it but the labors of the teachers; a ninth had a very comfortable appearance outside and a correspondingly cheerless one inside—the privy-well was foul and only partially drained by an outlet pipe near the top; in a tenth there was bad light, cellar air was supplied, and an offensive well close to the building.

Perhaps there are those among you who recognize some of these places as only around the corner from your own dwellings, for here is whence I have drawn these illustrations; and before you proceed to immolate me for treason to my birth-place, listen to an extract from the health officer's statement of the condition of things he found in the schools of the city of my present residence, and derive a crumb of criminal comfort that if you are as bad as bad can be, there are others just as bad. Beginning with a beautiful building, one of the magnificent temples of education of which that city boasts, he found on his first inspection spacious halls, large handsome rooms, heated by steam, amply lighted, well-furnished, provided with a ventilating apparatus communicating with a smoke-stack securing a draught, but supplied with fresh air by cold air-ducts, which, when followed to their mouth, were discovered in one

case to be led directly over a sewer-trap, in another from a damp, close and moldy area, and in every instance conducted under the ground-floor of the building. The furnace-room gave evidence of the regurgitation of sewage, and the janitor stated that during storms the reflux was such as to endanger the fires. In another building so beautiful that a model was sent to Europe, the same objectionable system of air-ducts existed. Thus, "on examination of the opening or entrance to the air-duct in the north-east yard, it was found that the same opening is used for a large sewer-pipe, and is a damp, moldy underground passage. The air-duct entering from the south-east yard is also used for a sewer-pipe, the latter being defective." A third splendid structure had its air-ducts constructed underground; the entrances to these passages, six in number, were found damp, moldy and wet, and containing filth and débris of all kinds. Two sewer-openings are located directly at the mouth of the air-duct on the north-east side of the building, one a cess-pool trap which at the time of the inspection had no water-seal, and the other an imperfect connection with a down-spout.

To satisfy you that this state of things is not exceptional, I quote from the first published report of the health board of a city very near us: Most of the schools receive the air to be heated and distributed from the cellar, which in some of them is very deleterious on account of the dampness and poorly ventilated condition of these cellars. In one school the principal defect is the imperfect underdraining of the large privy-well in the yard, the drain-pipes entering so far above the bottom as to allow a considerable offensive retention in the well at all times. In another, the well had no sewer connection, the drain was not even trapped, and a fecal odor pervaded the building, when it was opened in the morning. Two other schools were just as odorous; in a fifth the water-supply is from a pump only fifteen feet distant from two shallow brick-lined privy-wells; this was the case in another school, where the pump-well was thirty-five feet from the privy-well, and the water not only tasted badly, but was visibly changed with organic matter, and its odor was worse than its taste. The wells were all foul, and the cellar unclean and unventilated. Finally, in a seventh, the light was badly directed, and the heater-air was obtained directly from the cellar, in which from January 1st to April 15th, there had been nearly two feet of water.

This in New Jersey; the following from Baltimore: "In one of the rooms, 18 by 12 and 10 feet high, there were 81 children on the roll; 69 were present on the day of inspection; the remaining twelve were absent on account of sickness. Is it any wonder?" The average cubic air space was 26 ft. when all were present, 31 at the time of inspection. "In this room there was not a sufficient number of seats to accommodate the pupils, who were distributed around, some on the teacher's platform, others on the doorstep, and the rest crowded on the benches. The room had two windows with a north exposure. The children on the seats faced west, receiving the light from the right. In another room, 14 by 20 by 10 feet in height, there were 60 children on the roll and only 42 present—the cubic air space ranging from 40 to 66 feet per child. In all the rooms the supply of light was as insufficient as that of air; and as the building was especially erected for the purposes of a school, the reckless disregard of sanitary needs is the more grossly criminal."

Foul air, then, though the chief, is not the only insanitary abomination of our vaunted school system. Uncomfortable seats and desks torture and deform the plastic, undeveloped little bodies of children, many too young to be at school, or at anything but play. Glaring white walls and dazzling lights staring them in the face or from every direction but the proper one, badly-printed books with type and figures so small as to be illegible without effort, and compulsory night work at home by artificial light, combine to impair their vision. Neglect of provisions for common necessities and decencies, latrines that a brute would shun, the enforced restraint of every natural gestural expression of the emotions and reflex action, which constitute so great a portion of the child's mental and sensory nature, the physical overstraining of the intellectual organs—these are all factors of evil, but the *princeps malorum* is the confined, over-heated, and germ-laden air they are compelled to breathe over and over again. Instinctively one revolts at bathing in water, which a single other predecessor has used, but we do not hesitate to attempt to cleanse the blood of its soilure in the air-bath of the lungs after a hundred others had contributed to befoul it. I wish to give all the prominence and emphasis I can to this ignorance of the contamination by atmospheric filth to which gentle folks, equally with the lowly, subject themselves in parlor, church and school. Even

though the direr effects of disease do not always immediately follow, disgust should prevent the cleanly man and woman deliberately admitting into their bodies the nastiness of human emanations, which are poured into the air from lungs and skin at the rate of three avoirdupois pounds a day by each individual. One hundred gallons of air pass through the lungs every hour, carrying with it at each expiration four per centum of its volume of carbon dioxide and its organic attendants—and the cutaneous exhalation is nearly twice the pulmonary. Dr. Kidder, in his microscopic examinations of the atmosphere, found that human epithelium was the one thing always present on his slides. The *N. Y. Medical Record* states that while the number of bacteria averages 2,500 to the cubic meter of city air, there are 11,000 in the air of a city hospital. What then was the probable microscopic population of the air at a recent mass in St. ———'s church, in Philadelphia, which is described, by one present, as having been literally packed, every foot of standing room being occupied, without an opening for the entrance of fresh air, or for the escape of the foul air from heat registers, gas jets, wax tapers and human lungs —all the vast assemblage being as though shut up in an air-tight box. A hundred little boys and girls for two hours breathed this noxious atmosphere, to be then ushered into the cold rain out doors. How many cases of diphtheria and pneumonia and scarlet fever filled little coffins as the result of this one Sabbath's holy work? The immense ærial ocean in which we live purifies itself without man's aid; but when it is confined and its free diffusion hindered, its retained impurities quickly manifest deleterious qualities of the most virulent type, as in the notable instances of the tragedy of the Black Hole of Calcutta, in which 123 persons died among the 146 confined in a room 18 feet square; the suffocation of 260 out of 300 Austrian prisoners after the battle of Austerlitz; the deaths of 70 of the 150 deck passengers battened under hatches on board the steamer Londondery; and the "sweat-boxes" of the men-of-war of thirty years ago, whose inmates were often found asphyxiated when the doors were opened. Where the obstruction to the escape of vitiated air is not so great, the less conspicuous effects of air-pollution are shown in headache, loss of appetite, indisposition to exertion, fitful, unrefreshing sleep, soreness of the body, aching limbs, general debility, and mental obtuseness, followed after weeks or months of similar exposure by more serious ailments. When this train of symptoms occurs in Washington, the cause is rightly enough attributed to malaria—*malus aër*, in fact, but which quinine is not needed to cure, and only proper ventilation required to prevent. Knowing that the silver and copper and other salts used by the oculist in drops of dilute solutions, accumulate in appreciable quantities on the walls of the hospital ward, it is not hard to believe that minute scales from loathsome affections of the skin, volatile emanations from unclean or diseased bodies, the tainted expirations of those afflicted with detestable disorders, if not permitted to escape by free ventilation, must be taken into the lungs and thence into the blood, and it is sanitary ignorance of the most inexcusable sort which refuses to recognize the fact, estimate the danger, and provide the remedy.

What shall be said of that temper of mind which—the remedy, and an effectual one, having been provided—actually thwarts its application? Of this an instance will be pertinent. On board a ship at sea, where human beings are cooped in a floating box, sealed against the admission of water, and of course also of air, except in a few places above the water line, the practical difficulties of supplying the three thousand cubic feet of air per hour which each man requires as on shore are very much greater. Effective ventilation was the difficult problem of nautical hygiene. Attempts had been made by wind-sails and ventilators faced to the prevailing wind, and by opening the frame-spaces between the timbers of the hull on the uppermost or spar-deck, to provide for the admission of fresh air, but this was as feasible in fact as the attempt to blow air into a bottle. The stagnant, fetor-breeding strata in the nethermost depths were never disturbed. Finally it came to pass that the system of ventilation by aspiration was adopted. A hole was knocked through the bottom of the bottle, and the foul air sucked out, leaving the fresh air to come in at the neck of its own accord—and this is practically what has been done on board of the vessels of the navy in which the exhaust method of ventilation has been introduced. The engine operates a fan revolving in a close chamber into which open two large ventilating mains, extending the whole length of the vessel, and communicating by metal pipes with every apartment, passage-way, cul-de-sac or confined space. The suction induced extracts the local air, to be replaced by the fresh air that finds its own way

from the exterior. Nothing can be more admirable, nothing more effectual—the only indispensable condition being that the blower shall be made to revolve—and this I have good reason to know is frequently omitted to save the cost of the necessary fuel. Can sanitary ignorance reach a lower level?

The good fathers of the Church, in their warfare upon our fleshly counterpart, have not been the only ones who have made the worship of the heathen goddess Hygeia unpopular. The refinements of so-called modern culture, in their promotion of ease and comfort, have done their share towards weakening and undermining the physical edifice. Huge fire-places and loosely-fitted doors and windows—the one establishing an upward current through the chimney, the others permitting the free ingress of fresh air—have given place to hot-air furnaces, which pour their blasts into rooms sealed on every side to exclude cold. The pasty complexion which characterizes the luxurious occupants of overheated houses is one evidence of lost vigor; and as if to soften the muscles and attenuate the limbs still more, the little effort required to move about the house is spared by adjoining closets and bath-rooms to the bed-chambers. Consequently, the more palatial the establishment, the more objectionable it will probably be as a healthful residence. A private dwelling, perhaps the finest recently built in Washington, has, under its present proprietor. had its plumbing completely changed. Assuming that a structure of such pretension must be all it should in respect to essential hygienic precautions, he learned, after the terrible ordeal of a preventable zymotic disease, that it was only a stately monument of sanitary ignorance—and this is no isolated instance. I examined a house under construction, with a view of making it my residence, and was so pleased with the arrangement of the lower floors that I thought it almost unnecessary to go up stairs, where, however, I found comfortable chambers, and wedged among them a closet, lighted only by a gas-jet, and, on the floor above, to serve as a reservoir for mephitic air, a room without a window save the opening into the closet well. The owner had done his own planning, and was doubtless as well content with it as a friend who had built a princely edifice in Philadelphia, whose child died from typhoid, whose wife recovered with a shattered constitution from a similar attack, and who, while in the very prime of life, attributed his own premature debility to the overwork of a busy merchant, and was unwilling to believe that the very comforts and conveniences of his house were the cause of all the misfortunes by which he had been smitten. I have in mind another very elegant mansion, wherein wealth had been lavished upon all the extravagances of the upholsterer's art, where every human want had been provided, and every conceivable contrivance was so close at hand that personal exertion was reduced to a minimum, where the eye rested only on the beautiful, and every other sense was charmed—yet for. all, the damask hangings, and satin and rosewood, and fragrant flowers, were only the mocking mask of filth, and the child of the household died from a filth disease—a preventable disease—a disease which was only possible because these parents of high degree were as ignorant as peasants of nature's simple needs. In many a rich man's home today, while guests are reveling and dancing away the minutes, some young life is being sucked out by the vampire of preventable disease in some far out-of-the-way chamber.

In private dwellings, in hotels and public edifices, the grossest ignorance has been shown in this matter of the pollution of the air by so-called modern conveniences. The Chief of a Bureau whose office is in one of the newest of the public buildings of the Capital, not long ago discovered that the waste from the steam register in his window-recess opened without being trapped into a sewer, and I know of another establishment in which there is a display of elaborate traps about the lavatories, where side by side are bath-tubs overflowing into the soil pipes, out of sight, and not trapped at all. When you rent a house, how many of you ever think to inquire critically about the plumbing? When you go to a hotel, what gratifies you most? Is it not the communicating bath and the ever-constant supply of hot and cold water from the permanent wash-stand? Does it ever occur to you that there may be a little pipe to carry off the overflow of water on the wrong side of the trap, and ventilating the street sewer directly into your room, as was found to have been the case in a room in a leading Washington hotel, in which you and I, perhaps, have slept.

I promised at the outset that I would cry *Peccavi* with you, and here I admit that I was once as egregiously deceived as any tyro, notwithstanding my experience of the tricks and shams of the house-building fraternity—such as "Quaker" ventilating registers, which open into blind spaces in the walls where there are

no flues—putty-joints carefully blackened to counterfeit metal—pipes that enter ceilings and floors and there disappear. The occasion was the construction of an apartment under my supervision, intended to be a model of sanitary propriety, with its latrine perched in a box entirely outside the walls, and having, as I directed, its soil-pipe conducted through a cemented space in the outer wall. Even my successor commended the arrangement, and generously shared my chagrin when a few weeks ago, it was discovered that the adroit plumber had managed to save himself trouble, or rather have his own way, by effecting a connection under the floor of my model apartment with an old interior soil-pipe by another, which actually inclined upwards to its outlet. When the accumulation of years had narrowed the caliber of the pipe, and the increased pressure had loosened the defective joints, the escaping odors exposed the fraud. The revelation scarcely mortified me more than the discovery at another time that I had lived nearly two years in a house in which the soil-pipe had no outlet into the street sewer, and that my children's lives had only been saved by their habits of out-door exposure by day, and of sleeping with windows wide open at night. Doubtless in every street in every great city there is some such another underground mystery, under many a cellar a hidden quagmire unsuspected until its victim falls. A serious case of typhoid fever during my duty at the Naval Academy, led to the examination of an old earthen drain near by, and the discovery that it was completely filled for many feet with a mass of matted root, which had grown from one tiny rootlet that had found entrance through a minute flaw in the pipe. A few weeks ago, an officer of the health department of a neighboring city told me of the instance of a family of blooming children, who had come to reside in a neighborhood admired for its handsome residences and the absense of shops and other proletary eye-sores, who within a year lost color, strength and flesh, and were, as their mother said, always ailing. At his suggestion the house appointments were examined, and a cess-pool without outlet discovered under the cellar-floor, which emitted its fatal air without the hindrance of a trap into the house by way of the bath-room and the kitchen-sink. The landlord demurred at making the necessary changes, because he had lived there himself unscathed. "Where there is a death from typhoid," said England's great sanitary officer, "somebody ought to be hanged." Certainly where a single case of zymotic disease occurs, diligent inquiry should be made as to its cause. Where several happen, there is an absolute certainty that some wrong exists, which should be righted; yet I know of a neighborhood where such diseases have prevailed in a block of buildings drained only by an old twelve-inch sewer, which from the workmanship common when it was laid, is probably as level as a corduroy road, and leaks at every joint. Nevertheless this death-trap like a thousand others must remain until authority is vested in some one to discover and remove them at the expense of the wilfully or ignorantly neglectful owners.

Were I asked what functionary in the District of Columbia performs the most onerous, responsible and commendable duty, I should unhesitatingly single the inspector of plumbing. But he need be Hercules with Briareus' hundred hands, to perform the Augean task which must be done before even Washington, the fairest and cleanest city in the Union, can claim to be in a proper sanitary condition. First, he has to remain in his office from 9 a. m. until 1 p. m., to examine the drainage and plumbing plans of every building erected in the city, and ascertain whether they comply with regulations; and if he approve them, give a certificate, upon which the inspector of buildings issues a permit to build. After one o'clock he is expected to make a personal inspection of every house in course of erection, alteration or repair, and before he can certify that the work is satisfactory, and in compliance with the regulations governing plumbing and house-drainage, these inspections must be at least thrice repeated; first, when the iron drain-pipe is laid underground, it is required to be filled with water, and to remain full until seen by the inspector; second, when the vertical soil and waste-pipes are attached the same test is made; and third, after all the fixtures, such as water-closets, bath-tubs, wash-tubs, basins and sinks are in place and properly connected, the water turned on from the street and everything in working order. Can he, and the single assistant, only recently allowed, do all this, and do it thoroughly, in a city growing at the rate this does? Assuming that he can and that the strong arm of the law will support him in protecting against future insanitary follies in house architecture, what does it avail in face of the thousand upon thousand faults of the past that remain uncured?

The new house may be innocuous because

new, but what of the old house with its hidden cess-pool in the cellar, or so near the building that the prevailing winds blow directly from it into the chamber windows; with its earthen drains under the cellar floor, that have no fall or run uphill, broken or with leaking joints, saturating the spongy earth with sewage; with its old honey-combed iron and tin pipes that only needed to be smartly tapped to fall to pieces; with its untrapped and unventilated pipes that admit the air of the sewer or cess-pool through closet, bath-room or kitchen-sink, directly into the house; with its space under the building where light never penetrates, and its dark unclean cellars, whose stagnant air tainted with mildew, is heavy as the tomb's, where vegetables lay rotting and cobwebs are spun and vermin breed and multiply and rats burrow and undermine; with its dark rooms made more dark with heavy curtains, its cupboards and store-rooms where stale food decomposes, its clothes-presses and closets where soiled garments hang and cast-off shoes mold; with its cisterns and foul wells that are never cleaned; with any or all of the thirty or more defects in plumbing and draining, which Mr. Frederick N. Owen, the sanitary engineer, enumerates as having been encountered in his own experience—defective water-closet apparatus; cisterns with overflows joined to soil-pipe or drain; safes under closets or basins connected with soil-pipes or drains; two or more fixtures with unventilated traps on the same line of pipe, siphoning each other when used; scullery-sinks connected to drains admitting foul air to houses, not only through traps, but through brick-work joints; rain-leaders used as ventilators to drains, delivering foul air into bedroom windows or under eaves of roofs, etc., etc. Can any house claim to be safe as to health in which any one of these defects exist? How many of you can honestly declare of your own knowledge that not one of them is to be found under your own roof? Do you know that five, ten, twenty, all of them, are not there? How many of you have sought to ascertain the facts concerning them? Will you plead your ignorance in excuse if your wife or child or some other dear to you die from typhoid, from diphtheria, from scarlet fever, from any other zymotic disease? Whose but yours the fault that there is no well-trained corps of sanitary inspectors to do these things for you? Till such a corps is created, the responsibility rests upon each householder. You can make no better preparation against an epidemic visitation than to examine the possible sources of air-pollution in your own dwellings. See that the pipes within are sound, well-trapped and ventilated; and then follow them away from your house to the sewer, and thence to its outlet; and then observe what becomes of its contents, lest these are brought back to you in your drinking-water. If you do not take these precautions, you should feel that you are sleeping over a volcano. A thousand venturesome ones may even peer over the crater's brink and sniff the sulphurous fumes unharmed, but some day the thin crust breaks and you are overwhelmed by the streaming lava.

(*To be continued.*)

COMMUNICATIONS.

THE CAUSES OF PHTHISIS.

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[Translated by E. P. HURD, M. D., of Newburyport, Mass.]

In the following paper I shall assume, what I believe that I have elsewhere sufficiently proved, the bacillary origin of pulmonary phthisis. I shall at present concern myself only with the atmospheric conditions of causation. I shall first speak of the atmosphere in its relation to microbes in general; I shall then touch upon atmospheres which are especially *phthisiogenous*, under which head will come up for consideration the air of cities and crowded habitations, and lastly, as contrasted with atmospheres favoring phthisical contagion, I shall treat of cold atmospheres, marine atmospheres, and the atmosphere of altitudes.

The atmosphere is filled with spores of all kinds. It contains also fully-formed bacteria and bacilli, the latter, however, in relatively small quantity. It will therefore always be an object of interest to determine the amount of these microbes in the air of respiration, and their nature, whether specific or not.

According to the researches of Maddox, undertaken in 1870, to ascertain the microphytic contents of the atmosphere, and continued with the greatest success since 1879 by Miquel, the quantity of microbes, measured by the æroscope (as modified recently by Emmerich), varies according to several factors.

1. *The season.* In summer we have the maximum; in spring, the minimum. It is, however, important to note that too prolonged heat is quite a perceptible cause of diminution in the umber

of germs; the thermometer may give the key to variations of the season, but not to the weekly oscillations.

2. *Atmospheric pressure.* The more this is elevated, the more pronounced the quantity of microbes in any given area. When the barometer is below the normal, the germs are the fewest.

3. *Dry Weather.* The minimum hygrometric state favors the germination of bacteria, which are few in damp or rainy weather.

4. The winds exert only a doubtful influence. At Montsouris it was found that there was an increase of germs coincident with the north wind.

5. *Ozone*, when in comparatively trifling quantity, equally favors the multiplication of germs.

6. *High altitudes* exert a very marked influence. This fact is very apparent from the researches of Pasteur on Mount Jura and Mount Montanvert; of Tyndall at Chamounix; of Miquel and Freidenrich on the heights of the Bernese Alps. The contrary results obtained by Pouchet, Jolly, and Musset, from analysis of the air of the Pyrennes, and of Yung, from examination of the air of Switzerland, which was found to be quite as impure as that of Paris, must, I think, be explained on the supposition of defect in the manipulations.

I. These are the figures obtained by Miquel:

1. In Paris, 55,000 bacteria found in 10 cubic meters of air.

2. At Montsouris, 7,600.

3. At Hotel Bellevue (Thoune, 560 meters above the level of the sea) only 25 were found in 10 cubic meters of out-door air, and 600 in the same measure of in-door air.

4. At Lake Thoune only 8 were found in an equal measure of air. At an elevation above 2,000 meters there were none.

On the Eiger at 4,000 meters, at Strahlock and at Petite Scheidek, none were found.

All these differences in the number of microbes in the air of mountainous regions of Bernese Alps seem due, according to Miquel, to the following circumstances:

1. To the lowered barometric pressure of these high elevations; the dust particles are the more disseminated and dilated the higher you ascend.

2. To diminution of the density of the atmosphere, which can no longer hold the corpuscles in suspension.

3. At certain heights the bacteria cannot live on account of the cold—at the zone of perpetual snow, for example.

4. The rarefaction of the atmosphere, such as is found at high elevations, is a more important factor than the cold.

II. *Nature of the Atmospheric Microbes.*—All the microbes found in the atmosphere are of the ordinary kind; there are, besides, a few bacteria; bacilli are rarely found.*

III. *Methods of Research.*—All the microphytes, according to Emmerich, develop more readily, more energetically, and more rapidly in animal or vegetable liquids, sterilized by cold (the expressed juice of meat and juice of cabbages, for instance,) than in liquids deprived of parasites by ebullition; from this it is concluded that a principle very favorable to the development of bacteria in these liquids is destroyed by heat. But although the culture of divers microbes succeeds well in extracts of meat sterilized at high temperature, experience nevertheless teaches that decoctions of meat fail to possess the nutritive and other properties that can attract most of the parasitic germs diffused through the atmosphere. It is for this reason that methods actually in use do not suffice to enable us to find the pathogenic organisms in the air. The infectious inoculations undertaken by Fodor by the aid of bacteria cultivated in isinglass, and secluded from the air, demonstrate that there are in the atmosphere but two pathogenic forms—the *micro-bacterium agile* and the *desmo-bacterium*—and yet these are not capable of producing aught but septic infections. This want of success is due chiefly to this circumstance, that the nutritive culture liquids in use in æroscopy are almost exclusively monopolized by the common bacteria of putrefaction.

Emmerich has, it is true, succeeded in excluding the latter to the profit of the former micro-organisms; but we do not know if this method may not destroy at the same time the pathogenic organisms.

Hesse has just been employing other methods, and he has arrived at this conclusion, that the bacteria, properly so-called, are so rare, that in winter and in summer they are found with difficulty, but that in all seasons you may meet with their germs.

THE ATMOSPHERE OF PHTHISICAL PATIENTS. ATMOSPHERE CHARGED WITH THE BACILLIFEROUS PARTICLES OF SPUTA.

The transmission of the tuberculo-bacillary virus from the phthisical to the healthy man cannot take place unless the air of respiration is charged with the dried sputum of the patient. Without this there is no infection possible; the atmosphere, in fact, contains no bacilli, and it is as much as ever a question of doubt if there are spores which can engender the disease by entering a living organism.

*See Emmerich, in Archives d'Hygiene 1883.

In order to determine the deleterious property of the air expired by phthisical patients, the attempt has been made to make them respire this air where animals can breathe it, or to make the animals breathe air which has previously been passed over phthisical sputa.

I. *Air Expired by Phthisical Patients.* The first kind of test has not succeeded: the expired air does not contain and does not remove bacilli. May 22, 1883, Gibaux, the veterinary surgeon, communicated to the Academy of Sciences certain facts tending to prove the noxious character of expired air; but Tappeiner, on repeating these experiments, obtained results which were nil.

II. *Air Contaminated by Sputa.* It is not the same with air charged with bacilliferous particles derived from sputa. Tappeiner was the first (in 1877) to definitely solve the problem of contagion by such contaminated air. Eleven dogs were subjected, some of them permanently for several weeks, some for several hours each day, to the influence of breathing air containing the pulverized products of phthisical sputa, taken from subjects with pulmonary cavities, and diluted in ten times their weight in water. In all these animals tuberculosis commenced at the end of the third week.

The same year Dr. Reich, of Nuremburg, reported ten cases of death from tubercular meningitis, the victims of which were infants that had, as he believed, contracted the disease from a tuberculous midwife, who had a mania for embracing them and breathing into their mouths.

Tho results announced by Tappeiner were severely criticised by Schottelius, who obtained the same effects with irritating substances that wers not tuberculous. Meanwhile Bertheau and Giboux, in France, verified the experiments of Tappeiner; also Frerichs and Weichselbaum, in Germany and in Switzerland. Later, Baumgarten, as a result of his own experiments, denied all these facts. All this proves simply the difficulties of the experimentation, but in nothing contradicts the data of observation.

III. *Microbes in the atmosphere of the habitations of phthisical patients.*

Here we meet with the same difficulties. Wehde (see a dissertation published near the end of 1883, and cited by Bollinger) has made some interesting investigations pertaining to the atmosphere of rooms occupied by persons sick with phthisis. He collected on plates, covered with a thin stratum of pure gelatine, the floating particles of the sick room; this gelatine, which was turbid and opaque, was washed with distilled water and injected in fifteen hares and guinea pigs, four of which succumbed; in all the eleven others the result was absolutely negative.

Conclusions. — Contagion by the atmosphere, much more marked in its phenomenal effects than contagion by the ingesta, is nevertheless of so special a nature so restricted, and so difficult of experimental demonstration, that we are obliged to admit that a certain number of the factors of transmission escape us.

PHTHISIOGENOUS ATMOSPHERIC CONDITIONS.

In solving the social problem of climatology, in studying the influence of surrounding media on the health of the human race, medicine has been compelled, after long ages of speculation, to abandon its theoretical views, and confine itself to rigorous and impartial observation of facts. Now, it has been shown that many preconceived notions about climate are not well founded, and that countries with varied temperatures, meteorological and other conditions, and with altitudes quite different, are nearly equal with respect to the prevalence of phthisis. The disease, especially rife in cities, decimates the populations of temperate regions as well as regions in the torrid or frigid zone. It pursues its work of destruction in valley and plain, in damp as well as in dry lands. It exists and acts everywhere, provided that the one condition is fulfilled, namely the presence of human beings from whom the contagion may be derived and transmitted. The proofs that such is the only condition are innumerable. They are furnished to us by all the circumstances of human life—I refer more especially to social civilized life. This condition comprehends:

1. Living in cities as compared with living in the country; city air is pre-eminently microphytic.

2. The crowding of persons in barracks, workshops, boarding-houses, schools, jails. We have here an atmosphere microphytic and confined.

3. Climate exerts its favorable influence only through purity of the atmosphere; that is, through absence of microphytes.

4. Climate does not, in so marked a degree, influence the multiplication of parasites through changes of temperature as it has been supposed from purely empirical considerations to do.

5. As far as altitude is concerned it has only an indirect action, namely, as before said, by insuring fewness of microbes.

MICROPHYTIC ATMOSPHERE OF CITIES AND OF LARGE COLLECTIONS OF PEOPLE.

I. Everywhere, city life is disastrous from the point of view of phthisis. The mortality from

this disease in Philadelphia is 20 per cent.; in Marseilles, 25 per cent.; in Paris, 25 per cent.; in London, 23.6 per cent.; in New York, 19 per cent.; in Stuttgart, 15 per cent.; in Copenhagen, 13 per cent. These differences are due to nothing but the bringing together of masses of people; climate is of trifling importance in comparison with this. This has been proved by Bouchardat's statistics, and it is, in fact, among new residents and immigrants that the disease is the most rife, as is the case with typhoid fever, which is also a parasitic disease.

II. *Collections of People.*—It is where large numbers of people herd together that you find the maximum figure. There, more than anywhere else, the germs of contagion find habitat. In the conscripts that come from the country to the camp the mortality from phthisis is much greater than in the acclimated soldiers, the former not having previously been exposed to the germs of contagion. Barracks are such sources of phthisis that the Royal Guard of England, quartered at London, loses yearly 12 per cent. of its members, or three times more than the rest of the army. Tholozan says truly that the mortality in the French army in times of peace and of barrack-lodging is much more considerable than in times of war. If in the great boarding schools the disease oftener attacks the pupils that board there than those who board at home, it is simply because there are more sources of contagion in these large houses, for it is rare that you do not find there some tuberculous child or some phthisical person. This is still more true in its application to the congregated inmates of convents, in the case of whom the mortality constantly increases from the first to the fourth year, attaining, according to Lombard, the startling figures of 27 per cent In the prisons in which young convicts are confined, tuberculosis and scrofula (which is but the exterior form of tuberculosis) produce the greatest ravages. At Millbank jail three-fifths of the prisoners die of phthisis. In the penitentiaries of Algiers, says Pietra Santa, out of one hundred and fifty-three deaths, fifty-seven may be reckoned as from phthisis.

III. *Vitiated Air, Insufficient Air.* It may be objected to these data that in these accumulations of human beings, the air is vitiated by the carbonic acid gas expired, or is defective through relative diminution of oxygen, or is even insufficient altogether. The truth is, that the excess of carbonic acid is, under these circumstances (exception being taken of cases of over-crowding) scarcely appreciable. 20.8 liters in every 100 cubic meters, instead of 20.02, according to the figures of Angus. As for the impoverishment of the air with respect to oxygen, this is not calculable by chemistry, nor appreciable by the test of respiration; and if, moreover, the quantitative proportion of pure air were manifestly inferior to the exigencies of the economy, there would result a respiratory anæmia rather than phthisis. Now, phthisis and anæmia have really no common bond of union, there not being any necessary affinity between them.

The respiratory anæmia which gives rise to a lowering in the figure of the blood globules (hypoglobuli) has been wrongly confounded with that physiological deprivation, which affects the entire organism, and produces complete denutrition, and which, moreover, is sometimes, but not always, the antecedent of phthisis. Therefore, confined air which has ceased to be vivifying, and contains an excess of carbonic acid, is not a direct, nor even a remote cause of phthisis; the predispositions created in the organism are wholly dependent on the contagium, which is the more prolific of mischief the more dense and crowded the population. It is worthy of remark, that countries which are thickly inhabited have a much larger ratio of mortality than countries thinly inhabited. In London, out of every one thousand inhabitants 37 die of phthisis. In North Hampshire, a farming country where there are only 4,500 inhabitants to the square mile, or twenty times less than in London, the mortality is but 2.4 in every thousand.

(*To be continued.*)

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. Seelye, A. M., M. D.

Syphilitic Cephalalgia.

Patient is 35 years of age, and married. Was admitted to the hospital to day. Does not use stimulants to excess. He was exposed to specific infection five months ago, and not long after he found a chancre on his penis. This was followed by an enlargement of the glands in the inguinal region, but there were no other symptoms. Three months ago he contracted malaria while living on Long Island. He had a chill every second day, and each was followed by fever and sweating, and accompanied by severe headache. The chills finally ceased, but the headache has persisted until now. It is worse at night than during the day, and most severe upon the left side of the head. There is no pain in the back, neck, or

anywhere else. He has taken a good deal of quinine, but this has nas not relieved the pain in his head. On admission his pulse was 76, respiration 16, and temperature 99.9°.

Gentlemen, you have heard the history of this case. The man was brought here complaining especially of headache, which was rather more severe on the left side, and as he says worse at night than throughout the day. He also describes the pain as occurring in the distribution of the supra orbital branch of the fifth nerve. There is also a history of a chancre on the penis five months ago, and since then it has persisted with more or less severity until the present time. Now this subjective history is one that is supplemented by certain objective signs that make the diagnosis perfectly clear. If you will examine the skin on the anterior surface of the chest and belly, you will observe a well-marked erythematous blush, which is pretty well diffused. But if you look at it with a cross light you will observe that this is not a simple erythematous blush due to a macular eruption, but that it is a well-defined papular eruption. The papules are not very prominent, but still they are distinct, and the eruption is most marked upon the anterior surface of the arms and on the face. The erythematous parts are broken by zones of healthy skin upon the chest, and the same is true on the face. And I presume that if I could get a look into his mouth, I would find the mucous membrane of the hard and also of the soft palate reddened in the same way as the skin, and perhaps I would find some mucous patches, as they are called. But it is not only by inspection that you obtain the most prominent objective signs. If you examine the glands in the groin, and those in the back of the neck, and the chain that runs down the arm, along the internal border of the biceps, you will find them everywhere enlarged considerably, and the epitrochlear glands can be distinctly felt in both arms.

Now the diagnosis of this case seems very plain, because you have heard the history read, and have seen the patient examined. But without these aids the diagnosis of a case of this sort might very easily escape your appreciation. For example, this patient might have come into your office and have simply said that he had suffered constantly from headache for the past three months; and as this is not a very common history of headache, you would have examined carefully for the possible causes, and you might by accident have neglected to observe the eruption on his body, and so have overlooked the true cause. And because the pain is diffused more or less over the whole head, and is disassociated with any periosteal tenderness or swelling, and because you might suppose the patient to be of unquestionable character, no suspicion of the true nature of the trouble might enter your mind. Then you might examine him as to the location of his residence, with a suspicion of malaria, and if you found that he was living in a malarious region, you would say that malaria was the probable cause, and then you would examine him more carefully to see if there was any periodicity in the return of the pain; and if you thought that there was, you would give him quinine and send him away. But this would not do him any good, and so he would come to you again, and then you might say that there was possibly some derangement of the digestive organs, and you would treat him for this, and again you would fail. Then you might take his temperature, and finding some fever you might think that he possibly has a typhoid fever, and perhaps you would treat him for this for a while, and yet he would not get any better. Now by putting aside all your knowledge of the patient's virtuous character, and by making a thorough personal examination of his body at the beginning, you would avoid the possibility of all such errors as I have described. I say, therefore, that you should put aside any considerations of false modesty, and should ask him or her plainly whether he has ever had any venereal disease. Or if the character of the patient is such that you cannot go at it in that way, you can ascertain if there is any glandular enlargement anywhere, and above all whether there is any eruption on the body. And for this purpose you should yourself make a thorough examination of the skin, with a proper consideration for delicacy, especially if it be a lady, and by so doing you will be very likely to reveal the true cause. In a great many instances patients will tell you that they have no eruption on the body, and then upon opening their clothes you will find a distinct erythematous eruption, which may occupy only the anterior surface of the breast and belly, or it may be on the back and nowhere else. I shall never forget how strongly this necessity for personal examination of patients was impressed upon me when I was a medical student, twenty-five years ago, by M. Clare, the syphilographer. He always insisted upon the importance of our examining the skin for ourselves, and of not taking the patient's word: for he said that often on removing the patient's clothing, we would find an eruption just where the patient said that there was none. But then supposing there was no eruption at the time of your examination, yet if you found, as there are here, multiple enlargements in the glands of the groin, axilla, neck, and arms, your diagnosis is made; and then if you put the patient upon anti-syphilitic treatment, he will get rapidly better.

Now there is another point of interest in this case. This man's chancre occurred about five months ago, and at the end of two months, about the usual period, he began to show symptoms of general infection, such as fever, and neuralgic pain in the head; and this has been continuous ever since. Now, the severity of the neuralgic pain which the patients with syphilitic fever complain of varies very greatly. Sometimes it is not complained of at all; and the reasons for this difference are the same as are found for such variations in ordinary febrile conditions—that is to say, reasons connected with the individual himself. You know from personal experience how differently different people suffer from pain in the febrile condition, and how some patients with a very high fever suffer very little discomfort, and vice versa. The cerebro-spinal symptoms vary very greatly in febrile conditions, and they vary most of all in syphilitic fever. Sometimes the suffering is most atrocious. I have seen patients suffering so intensely that large doses of morphia were necessary to relieve them, who were promptly

and permanently benefited by putting them upon anti-syphilitic treatment. In syphilitic fever neuralgia of special nerves, such as any of the branches of the fifth nerve, is very common. Ordinarily, these patients are disposed to headache, and to pain in the limbs, and articular pain in the joints; and this is very different in character from the osteotrophic pains proper which come from lesions in the periosteal membranes, such as occur in the later stages of constitutional syphilis.

But pain is not the only disturbance from which these patients suffer in this secondary fever of syphilis. Occasionally they suffer from attacks of petit mal, and occasionally they even have attacks of regular convulsions, and occasionally they become maniacal. And I have seen the aphasic condition a number of times in persons suffering from this fever, and I have sometimes seen temporary paralytic phenomena occur as well. Yet these symptoms, as a rule, are very different from those which occur in the later stages of syphilis from disease of the intra-cranial periosteum. They probably depend upon some transient disturbance in the circulation, and they have not the same significance as those which are often seen in the tertiary period. Now, you may ask whether this syphilitic fever is ever associated with a high temperature. There is not usually a very high grade of fever, although I have seen a temperature of 103°. But more commonly it does not exceed 101°. In this man it is about 100°.

The treatment of these cases is fixed and specific. There is but one way that I know of to control this fever, and that is by giving mercury. Quinine and digitalis and alcohol will not help him. Mercury is the only thing in my experience, and in the experience of others as well, that will quell this fever, and that speedily. This man will be put on the mercurial treatment, and the form of administering it may be varied considerably while accomplishing the same end, and after a few days he will probably feel tolerably comfortable. Any of the various methods of giving the drug may be employed. But the iodide of mercury by the stomach is perhaps the most common and satisfactory form, though the bichloride is also much used. But however given, it is always with the view of producing its specific effects on the gums, and of then keeping the patient under its influence for a long time. We will start this man on three grains of blue pill three times a day; and in order to give him rest we may have to give him opium at night in moderate doses. But this is only as a temporary measure, to give him comfort.

Medical Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, April 2, 1885.

The President, Dr. B. F. Baer, M. D., in the chair.

The President exhibited the specimen and reported the case of a rapidly-growing

Ovarian Cyst.

A patient of Dr. G. Walls, of Lock Haven, Pa., M. L., æt. 26, single, puberty at 14, always well, and possessed of a remarkably fine physique, tall and robust, felt some pain and uneasiness in the ovarian region three months ago. She was examined by Dr. Walls, who found the right ovary enlarged to the size of a large orange. She soon after found that her abdomen was increasing in size.

On March 9 I saw her. She was beginning to show facial signs of ovarian disease in slight emaciation, pallor, and the peculiar distress of countenance. The menses were regular; the abdomen was distended to the size of the eighth month of pregnancy, and was perfectly symmetrical, pyriform in shape, dull on percussion, with a resonant corona, extending around from one flank to the other; and there was marked fluctuation. Vagina virginal, cervix uteri pointing slightly forwards, body retroverted and mobile. The lower border of the abdominal tumor could be touched per vaginam. The uterus was not affected by the movement of the tumor.

Diagnosis,—Ovarian cystoma. Immediate removal advised.

Operation.—Assisted by Drs. Walls, Hayes, and Lichtenthaler; in the presence of Drs. Watson and Ball. Incision, two and a half inches, fat in abdominal wall at least an inch in thickness. Tapped the cyst, which contained at least a bucketful of thick fluid, the color of pus. Removed the collapsed tumor through the small incision; there were no adhesions; ligatured the short pedicle, and dropped it. The left ovary was found to be as large as a walnut, and undergoing polycystic degeneration; it was also removed. The incision was closed with six silk sutures. The patient recovered without an untoward symptom.

The rapidity of the development of this tumor was remarkable, and justified me in bringing it before you. The other ovary is a beautiful specimen of beginning polycystoid disease. It is a curious fact that of my last six ovariotomies, in not one of them did the period of development extend over nine months from the time the disease was first discovered—one of them only three months, as just reported, from the time it was found by Dr. Walls to be the size of an orange. They were all good-sized tumors, two of them weighing nearly forty pounds each.

The Bromide of Ethyl as an Anæsthetic in Labor.*

Dr. Montgomery, in reviewing the various anæsthetics, said chloroform is objectionable, in that it causes inertia uteri and tedious labor, and increases the danger of post-partum hemorrhage. The relatively infrequent fatal cases under its use in surgical practice, and the still more rarely serious results from its use in obstetrics, forbid its habitual use. The use of ether in natural labor is infrequent, because to relieve pain the patient must be profoundly etherized. Partial etherization but destroys the ability to bear pain, without obtunding sensation. Besides, Tait has demonstrated that ether passes rapidly into the circulation of the fetus, endangering its existence. The mixture of nitrous oxide and air, advocated by Klikowitsch, requires a special apparatus, and is unwieldy. The ideal anæsthetic is one that is

*The entire paper will be published in the Amer. Jour. of Obstetrics.

safe for mother and child, certain in its effects, rapid in relieving pain without producing loss of consciousness, and whose effects pass off quickly. All these demands are met by the bromide of ethyl. He enumerated 112 cases in which it had been used, twenty-nine of which were in his own practice. None of the mothers died, and but three of the children. In none of the latter could death be attributed to its use. It was administered during the second stage of labor by placing a napkin, wet with a few drops of the ethyl, over the face of the patient at the advent of each pain, and withdrawing it as the pain subsided. Unless a drachm was used, the sensation of pain was obtunded without arresting consciousness. The process of labor was carried forward vigorously and quietly, the patient ready to exert or withhold voluntary aid as her attendant might direct, and the expulsion of the head was attended by no greater pain than accompanies the evacuation of obstinately-constipated bowels. His experience did not lead him to believe that its use would induce inertia uteri or increase the tendency to post-partum hemorrhage.

Dr. E. M. Barr is much interested in this subject, and thinks from this report that the indications for the usefulness of the bromide of ethyl are favorable. He would like to know to what degree the patient returned to consciousness between pains. He will use bromide of ethyl as an experiment; but he will say here that his old combination still gives him the very best effects, with perfect safety. He has continued to use it in almost every case of labor since his report on anæsthetics in labor (see MED. AND SURG. REPORTER, March 13, 1880). He would feel some hesitation in using the bromide of ethyl, as it is dangerous, even if not so much so as chloroform. How would it act if mixed with ether? The objectionable qualities of chloroform and ether balance and overcome each other, and the addition of alcohol to the mixture prevents their explosive action, so to say; that is, the sudden effect of a full and deep inspiration of the strong vapor of the anæsthetics is prevented by the admixture of alcohol in the proportion of chloroform one part by measure, ether three parts, and alcohol two parts. If a portion of this mixture be placed in a saucer and heated, it will all evaporate together; the ether does not pass off from the alcohol. This mixture soothes the pain and makes the patient happy. The excited or drunken stage of ether is avoided; the danger of chloroform is avoided. Unconsciousness is unnecessary, and is not produced. If bromide of ethyl has any of the dangers of chloroform, they are unchecked by admixture with correcting agents. Dr. Barr related the particulars of a case in which he had employed his mixture, to show how kindly it acted in presence of suspected functional heart disease. In this case its administration was continued for nine hours; the pain was relieved, there was no vomiting, no effect upon the pulse.

Dr. R. P. Harris remarked that chloroform was considered perfectly safe as an anæsthetic in labor. Playfair, in his last book, advocates it on this ground; but there have been fatal cases. The danger of an anæsthetic, can only be ascertained after it has been used and reported by many observers, so as to get an average. Some men are careful and cautious; but all are not. The use of mixed anæsthetics is becoming more general in England.

Dr. W. M. Welsh, upon invitation by the President, remarked that he had had no experience with bromide of ethyl, and but very little wtth other anæsthetics. He had given ether in one case, and a troublesome condition of intoxication had been developed. He was applying the forceps, and the patient suddenly seized one blade, and wrenching it out of the vagina, tore the vulva. He prefers to get along without the use of anæsthetics.

Dr. Henry Leaman, upon invitation by the President, said that he also had no experience with the bromide of ethyl. He does not hesitate to use ether in bad cases of labor, but he does not employ it when he can avoid it. He is not yet convinced that the use of anæsthetics in natural labor is advisable. There has not yet been formulated a satisfactory definition of natural labor. He is now engaged in studying that subject. He has observed in private practice most of the positions described by Engelmann in his papers on primitive obstetric practice. The sympathetic system in labor reacts upon the cerebro-spinal system, and produces the condition of nervous excitement which is seen in the patient and which often extends to the friends of the patient, and even to the doctor in charge of the case. After a close observation of over 600 cases, he thinks labor can be as natural a physiological operation as respiration or the circulation of the blood, or any other function of the body, with this one difference—that whereas the ordinary performance of function is pleasurable, in labor pleasure is replaced by pain. He is not in favor of the use of anæsthetics merely to remove or obtund this pain, as it is natural, and anæsthetics may interfere with the natural process and cause relaxation or retard involution, resulting in that root of endless misery, a sub-involuted uterus.

He has been making careful studies with a dynamometer, which measures the available pressure. I believe that it gives the sum of the pressure applied to the ovum expressed in the projection of the advancing part, against which it rests. He will continue these studies, which are not yet complete. The force of the accessory muscles, as the diaphragm and abdominal muscles, takes no real part in the expulsion of the fœtus, but merely embraces the uterus, preventing any rebound or loss of force when the ovum impinges against the pelvic wall or perineum, their action being to sustain or hold the uterus closely to its work. The entire force exerted is not nearly so great as is usually supposed. The force of labor does not exceed that of arterial pressure, which I think is about six pounds. The exit of the child is not violent, but gradual. It is a popular belief that a majority of labors occur at night, but of his six hundred carefully recorded cases, an equal number were born between 6 a. m. and 6 p. m., and between 6 p. m. and 6 a. m. There are, however, two acmes, one at 11 p. m., and another between 7 and 8 a. m. These two periods correspond to the times of greatest blood-pressure. He ranges himself on the side of those who believe in the non-necessity of the use of anæsthetics in natural labor.

Dr. W. H. Parish would like to hear more particularly from Dr. Montgomery in his closing remarks, respecting the safety of bromide of ethyl as an anæsthetic. A few years ago it was introduced into surgical practice in this city, and was abandoned in consequence of its dangerous character. If it is dangerous in surgery, why should it not be so also in obstetrics? Chloroform, which was at one time considered perfectly harmless in the latter class, has been found to be no safer there than in ordinary cases.

He has established for himself three rules respecting the use of anæsthetics in obstetric cases:

1. In easy, normal cases, no anæsthetic is required.

2. If the patient is nervous, excited, and uncontrollable, he gives chloroform at the incipiency of each pain, to quiet the excitability of the patient and take off the sharpness of the pain without producing unconsciousness; during the intervals between pains, the chloroform is withheld.

3. Whenever he considers that unconsciousness, full anæsthesia, is necessary, he employs ether, so as to avoid the depressing effects of chloroform. Bromide of ethyl might be used in place of chloroform, as indicated in his second rule, if shown to be equally safe; but he would not consider it proper to use it to produce complete relaxation, as required for version or the application of the forceps. Prof. Wood, in his experiments, found bromide of ethyl more dangerous than chloroform. Dr. Parish does not now use it, and he fears it would go hard with any physician before our courts if he had a fatal accident occur during its use.

Dr. Burr thought Dr. Leaman's estimate of the force required to extrude a full-term fœtus far below the mark. A child weighing seven pounds or over is pushed through a curved, horizontal, resisting passage, with irresistible power, and sometimes rapidity. A force of six pounds would not lacerate a perineum. In some cases there is but slight resistance, and the force required is small, and the pain not severe. He has seen cows moaning from the severity of their pains during parturition. In one case recently a cat was delivered of its first kitten after severe and prolonged pain, and the second kitten required three hours for its extrusion. The pains of labor are more easily alleviated than the pains of surgery by anæsthetics, and with no increase, if not a diminution, of danger.

Dr. Montgomery, in closing, said that as to danger from the use of bromide of ethyl, he thought there was no danger if a pure article was carefully used. The patient is not completely narcotized; consciousness is not lost; the administration of the drug is interrupted. The patient can co-operate, although relieved of suffering. She can answer questions. Prof. Müller is the only one who has failed in obtaining good effects, and this was probably due to impurity in the drug. Bromide of ethyl does not take the place of chloroform, nor does it produce muscular relaxation, or relaxation of the uterus as required in version. It can be pushed to complete unconsciousness, but that is not necessary, as pain will be relieved without, while the contractions of the uterus and respiratory muscles are fully as effective as without it. Labor is undoubtedly a physiological process, as much so as respiration or defecation, but it does hurt. It is the type of the most severe and agonizing suffering, and we, as physicians, are called on to relieve that suffering and prevent the waste of vital force to the extent that we can by preventing pain, long-continued pain. Bromide of ethyl is apparently entirely safe when given as I have used it. Experimental physiologists do not all agree with Prof. Wood as to the comparative danger of this and other anæsthetics.

W. H. H. Githens, *Secretary.*
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Editorial Department.

Periscope.

Malformations of the Heart.

Dr. Robert J. Lee thus writes in the *Lancet*, February 28, 1885:

Cases of congenital heart disease in infants and children are generally of great interest—perhaps because they are not very common, or because exact diagnosis is difficult. At one time this difficulty of diagnosis aroused an interest in my own mind; but time, observation, and reflection have altered my views, and presently I will explain to you as briefly as possible the reasons why. We will begin, as usual, with a case, a typical one, of congenital malformation of the heart, and of rather common occurrence. The boy is now in fairly good health. According to the mother's account, he has never been so well. He is between five and six years of age, is well grown and well nourished, and there is no complaint made of disturbed health except a slight cough. We have had him under observation for several months, and his mother says that he was brought to this hospital between three and four years ago, when he was about eighteen months old. We are told that he had three convulsive attacks at that time, but there does not seem to have been any reason for suspecting disease of the heart—at least, no intimation of this was given to the mother. When he came the second time, some months ago, there was then nothing very definite in the symptoms. He suffered chiefly from a disinclination for exercise or movement, from occasional swelling of the joints of the knees, feet, and hands; and he had spots of rather bluish ecthyma on different parts of the body. It was the fact of these symptoms being indefinite, and

perhaps more particularly a peculiar expression of anxiety in the face, that made us at once suspect some cardiac trouble.

If you examine the boy's heart, you will find very much the same signs to-day as when he was examined a few months ago. You can hear a loud prolonged murmur over the præcordial region, but loudest a little below and to the left of the nipple; and you can follow the murmur round the axilla to the angle of the left scapula, where it is much fainter than in front, but still very distinct; it is systolic, but more prolonged than the ordinary mitral murmur of rheumatic origin. The liver was enlarged, for its margin could be felt midway between the umbilicus and the right costal boundary line. The treatment was active and satisfactory. We relieved the circulation by leeches applied over the heart, encouraging the hemorrhage by fomentations. We ordered full doses of digitalis combined with the mixture of iron and magnesia; and, lastly, we enjoined perfect repose. As you see, the impulse of the heart is considerable, but the contractions are regular, and not very rapid, not more than 80 in the minute, and less, probably, if the boy were not a little excited. The clubbed condition of the fingers, which was noted some months ago, has disappeared; the skin is quite healthy, and there is no swelling of the joints; in fact, there is nothing particular to observe in the case except the cardiac murmur and some coarse crepitation in the lungs, due probably to a recent mild attack of bronchitis, or to slight congestion from the condition of the heart.

The case is not complete without an inquiry into the possible origin of the malformation. The first symptom of serious disturbance of the child's health was when he was ten months old, and then his breathing was at times oppressed, and there were other symptoms, although not at the time understood, yet clearly sufficient to decide the question of the congenital character of the cardiac defect. Two possible causes are given by the mother. One is that three weeks previous to the birth of the child she had a serious fright, from a fire breaking out immediately behind the house in which she was living. Her anxiety was increased from the fact that her husband kept an oil-shop, and there was imminent danger of a conflagration on their own premises. The child was born rather prematurely, in consequence, it was thought, of this accident. The other cause is somewhat different. The father was the subject of severe rheumatism, and though we cannot ascertain distinctly the cause of his death, yet we are told that it happened rather suddenly eight months after the birth of this child. The relation between the father and the boy's condition is simply this—that if the former were the subject of disease of the heart of rheumatic nature at the time of conception, we know by experience that this may be the cause of cardiac malformation in the offspring. Which of these two causes was the potent one in this case I am not prepared to say. It is true that the most common cause of this kind of malformation is maternal trouble; but in giving you the complete history and all the facts, I have indicated a possibility worthy of attention and recollection. There is one point to be noticed before we discuss the nature of the cardiac defect, and that is the convulsive attacks which occurred at the age of eighteen months. They were not ordinary convulsions, such as we are familiar with in infancy. They were rather long attacks of passive coma, without muscular spasm, and were alone sufficient to suggest some cardiac trouble. I have already pointed out, when considering the subject of convulsions in infancy, that this form of so-called convulsions presents a striking contrast with the form we are most familiar with. I think that the importance of carefully examining the heart in infants when the convulsive attacks are of comatose character was then mentioned to you.

Now we will consider what is the probable condition of the heart. Though we may not be able to diagnose for certain the exact nature of the malformation, we can arrive at conclusions exact enough for all practical purposes. In this case I think we may conclude that the defect is situated in the ventricular chambers, and that in all probability it consists of a communication between them somewhere in the interventricular septum. This is not an uncommon form of malformation. As you might imagine, the most common form is a communication between the auricles from non-closure of the foramen ovale. The auricles thus become practically one chamber, and we judge of the extent to which they are partially divided by the general condition of cyanosis. But if you expect to find a murmur present in most cardiac malformations, you will perceive on reflection that this is unreasonable. In the majority of cases the chief physical sign is rapid and increased action of the heart, and not what we have observed in the case before us. It is for this reason that we must attend more to the general evidences of disturbance of the circulation than to the stethoscopic examination, and even when there is a distinct cardiac murmur we must look rather to the former than the latter in giving a prognosis. If we take a general view of this question, we shall see that it resolves itself into an hydrostatic problem, where the point we have to determine in any particular case is not so much the locality where the two blood currents, the arterial and pulmonary, are confluent, but rather the extent to which confluence is permitted by defects in the chambers or vessels which contain the fluids.

Imagine that we have two tubes of equal size placed parallel to one another, and that water or any other fluid is flowing through them in a similar direction, and at the same pressure. If we open a communication between these tubes by a cross tube interposed at right angles, no effect is practically produced upon either current; but if the cross tube is inclined at an angle between them, there is a tendency for a current to be established along the interposing tube. You can easily perceive that the size and the direction of a communication between two currents determine to some extent how far one mingles with the other. In a closed circuit the conditions are somewhat different, and we have to consider the difference of pressure on either side of a communication between the two systems.

In the case before us, for example, there is probably a current from the left ventricle into the right during each contraction, with little if any

current in the opposite direction, at least if there is it must be during the diastole. I think that if the right side of the heart were much congested, and the fluid pressure were increased, there would be more trouble, and cyanotic symptoms would exist, as at the time when the leeches were applied. We will not consider this subject any further now, as you can pursue it at your leisure without my assistance. It only remains for me to say a few words on a line of research which I have no doubt has occurred to you as likely to aid in diagnosis—namely, the examination of the numerous specimens exhibited in most museums, or the descriptions to be obtained from various sources of different kinds of malformation. It is rather curious to find that a good many of the specimens in museums were accidentally discovered, and prove chiefly that persons may live without suspicion of anything being wrong with the heart for many years. In other respects these specimens, from having no history attached to them, are not of much value.

A classification may be made from such a collection of specimens, and certain general conclusions may be drawn; but when this is done you are not much assisted in the diagnosis of any particular case. There is one thing certain, after all, and that is that general symptoms must be relied upon rather than physical signs in deciding the probabilities of life being supported under the circumstances. A large number of cases soon terminate fatally, and by soon I mean within a few weeks or months from birth. It often happens that, provided that the greatest care is taken of an infant, it exists until an accidental exposure to cold induces some complication, such as bronchitis or pneumonia, or it becomes the subject of convulsive attacks, which soon prove fatal. In many cases the distress of the infant is very painful to see, and we need not hesitate when expressing faint hopes of life to point out how little its prolongation is to be desired where the suffering is so great. Among those who have made the subject of malformations one of special study, and to whom we are much indebted for carefully-described examples, as well as important generalizations, I must not omit to mention the name of the late Dr. Peacock. It is associated in my mind with such estimable qualities of intellectual and moral character that I mention it with deep respect and affection; and when I recommend to your attention the writings of this distinguished physician and pathologist, I do so in the conviction that you will derive great satisfaction and profit from the perusal of his works. In the Transactions of the Pathological Society some of his most important contributions will be found. In vol. xxxii., p. 35, there is a brief but valuable summary of what he described as "the most common kind of deviation from the natural conformation of the heart," the cases where the aorta communicates with both ventricles through deficiency of their system.

Seeing that we must be guided so much more by the general symptoms, in our diagnosis and prognosis, than by the physical signs in this class of cases, you will appreciate my reasons, I hope, for attaching more importance to the former than the latter; and though it is not my wish to discourage you from carefully determining physical signs, it is proper that you should not attach too much importance to them, or hope for as much assistance in diagnosis as we are accustomed to derive when dealing with other forms of cardiac disease.

Disorders of Digestion.

From the *London Med. Times*, February 7, 1885, we note the following extract from Dr. T. Lauder Brunton's lecture:

In the first lecture the lecturer had stated that the function of digestion, like health generally, might be strong or weak. A strong digestion was capable of withstanding all sorts of adverse influences, while a weak digestion remained undisturbed only under the most favorable circumstances. When any disturbances occurred in the digestive function, no matter whether it were strong or weak originally, the first step towards restoring it to health was to remove, if possible, any disturbing causes which might still be acting upon it. One of the commonest of these was imperfect mastication. This frequently arose from too short a time being allotted for a meal, or from the mind being occupied during the meal with the idea of something to be done afterwards. Persons who took their meals alone very frequently read during them. But a solitary meal should be avoided if possible, for the mere presence of a companion, and, still more, occasional conversation, acted as a pleasant stimulus, and tended to maintain the nervous activity referred to in the first lecture as an important factor in perfect digestion.

Another cause of imperfect mastication was the condition of the teeth. Sometimes the teeth and gums were tender, or one or more of the teeth might be decayed, and the discomfort or pain occasioned in them by mastication led people to bolt their food, or to masticate on the other side of the mouth, if the tenderness was limited to one side. When all the teeth were gone, the person might chew perfectly well, not only by means of artificial teeth, but also without them. The effect of thorough mastication upon the food would vary a good deal according to the nature of the food itself; and tough substances, which could with difficulty be comminuted, would be more indigestible than those which were readily broken up.

The fine subdivision of fatty food was of great importance in regard to its digestion. The more minutely the fat was subdivided, the more easily was it digested.

In regard to butcher's meat, also, there were great differences, depending both on the kind of meat used and its condition at the time of cooking; meat which was cooked before *rigor mortis* appeared, or after it had passed off, was tender; but meat cooked while *rigor mortis* still existed was sure to be tough. In the case of game, the practice of keeping the meat until it was actually commencing to decompose, was not without some danger; for not only might the products of decomposition formed in the meat, before it was cooked, be injurious, but decomposition would be rather apt to occur more readily in the intestinal canal. The gastric juice, no doubt, had a considerable antiseptic power, and so had the bile; but these

powers might be overtaxed, and eating high meat was one of the ways in which this might be done. It was, however, rather extraordinary to what an extent the consumption of decomposing food could be carried without any immediate injury, as was seen amongst the Esquimaux and Icelanders.

After referring to the importance of good cooking, and observing how unappetizing badly-cooked food was, the lecturer spoke of intemperance. The proper way to abolish drunkenness, he said, was to remove the thirst that led to it. The malnutrition which gave rise to a craving for alcohol might be a consequence of imperfect digestion, as well as of an insufficient supply of food.

But, besides cooking and mastication, a most important question had to be considered, viz., the kinds of food a person might eat. In a healthy man, the best guide, both as to quantity and quality, was the appetite. Food eaten with a relish was, as a rule, wholesome. Too great a regulation of the diet was sometimes very injurious. But the palate and the appetite alone would not serve as reliable guides to the quantity and quality of food. They had to be regulated by experience.

Dyspeptics might be regarded as a peculiar class of people, requiring fuller instructions as to diet than healthy people; and a few general directions to them were by no means out of place. Thus, they might be directed to avoid new bread, buttered toast, muffins, and pastry, all of which were difficult to disintegrate. They might be told to eat fish, or to prefer meat which had a short fibre, like mutton, chicken, or game, rather than to take those meats where the fibres were long and tough like beef.

There were some substances taken with food which were utterly indigestible. Most seeds, when whole, were indigestible. Even when broken, like the kernels of nuts or almonds, they were sparingly digestible; and the same was the case with the skins of fruits, and the harder fibres and the stalks of vegetables. Where the intestines were slow to act, such things as strawberries, raspberries, figs, nuts, prunes, and apples, might be allowed and even recommended; but where the intestines were irritable, all such things must be forbidden. Acid fruits were not only indigestible in themselves, but were apt to leave irritation behind. Some drinks were peculiarly liable to cause indigestion; for instance, sour wines, some kinds of beer, and tea. Tea was better borne by the stomach when taken with bacon or tongue, *i. e.*, with cured meat, than with fresh meat, and it was partly owing to that fact that many people could drink tea at breakfast who could not take it at any other meal. When taken two or three hours after lunch, tea brought on acidity, probably because the contents of the stomach were much more acid at that time than at any other. Amongst the poor the tea was so made as to contain a large proportion of tannin, which had an irritating effect; then, again, it was taken very hot; heat was a stimulant to the heart, but in this case, the heat would reach the heart directly through the thin diaphragm. Coffee had not such an irritating effect as tea, and cocoa was still less irritating.

Another cause of imperfect digestion was fatigue. "How often," said the lecturer, "do we find that the meal taken by a person immediately after a long railway journey disagrees with him, and either causes sickness, diarrhœa, or a bilious headache. Forty winks after dinner is by no means a bad thing, but forty winks before dinner is frequently much better." Effects, somewhat similar to those of fatigue, might be produced by depressing or disturbing mental emotions, or bodily conditions. Different emotions appear to affect specially, not only different organs, like the heart and intestinal canal, but different parts of the digestive apparatus. Thus, disgust affected the stomach, causing vomiting; fear was seen, in some of the lower animals, to affect the rectum, causing defecation; compassion affected the small intestine, producing borborygmi; worry and anxiety, although they worked upon the stomach and lessened appetite, appeared to have a very special influence upon the liver. They sometimes produced jaundice, and not unfrequently caused glycosuria; indeed, most of the cases of diabetes in middle-aged persons appeared to originate in worry and anxiety.

In treating cases of indigestion, or the consequences due to injurious mental influences, the depressing cause must be removed if possible. If this could not be done, change of air and scene, with exercise short of fatigue, and in the open air, were serviceable. Bromide of potassium, either alone or combined with bromide of ammonium, was very useful, both in lessening the sensibility of the nervous system to worry, and in procuring sleep.

Gastric tonics increased the appetite, loosened flatulence, and tended to diminish the discomfort and languor which were apt to accompany indigestion. Another class of remedies was that of carminatives, which tended to disperse flatulence. Amongst the most powerful of these were ethers and volatile oils of various kinds, charcoal, and subnitrate of bismuth, which, however, produced their effects in a totally different manner. Closely allied to carminatives, he placed stimulants, including alcohols and ethers. He was not opposed to the use of alcohol, provided always that it was used in moderation; the infirm and aged required a little wine.

Treatment might also proceed on other lines; the products of waste had to be removed; purgatives were used with this object. A regular action of the bowels was important, not only by removing the indigestible residue of food, and thus preventing fecal accumulation, but by getting rid of some injurious products which had been formed during the process of digestion. Where the bowels were habitually constipated, a most useful thing was to give a small aloetic pill before the last food of the day, dinner or supper, as the case might be. The use of such pills might be continued for very many years together, without the least impairment to the general health. The saline natural waters, or the salts obtained from them, were best given the first thing in the morning, and should be either warmed or given along with warm water.

There were two kinds of biliousness, *i. e.*, biliousness with two different conditions of biliary flow. In the one kind, the stools were clay-col-

ored, from the absence of bile; in the other, the stools were either normal or dark-colored, from excess of bile. Certain bodies belonging to the aromatic series had a very remarkable action upon the secretion of bile—some rendering it much more watery than before; others, again, making it so thick and viscid that it would no longer flow through the biliary capillaries, whence jaundice resulted. A blue pill and black draught always proved useful in such conditions.

Closely connected with cholagogues and hepatic stimulants, there was another important class of drugs, namely, alteratives. Nitrohydrochloric acid was a favorite remedy, and a very useful one in biliousness, and chloride of ammonium was much recommended. Another class of remedies was also useful in indigestion, viz., diuretics. By the frequent use of water as a diluent, either alone or with salines, the consequences of indigestion in regard to the lungs, heart, and head, might be often averted or remedied.

One of the most important methods of treatment consisted essentially in passive exercise and abundant feeding. Treatment by massage increased the nutrition, both of the voluntary muscles and of the internal organs; and under its use patients, apparently hopelessly incurable, completely recovered.

The lecturer concluded with a brief reference to a case in which this treatment had proved eminently successful.

A Somewhat Anomalous Post-Epileptic State.

Dr. James Oliver thus writes in the *London Medical Times*, April 18, 1885:

George S., a butler, aged thirty-six, was admitted into hospital. He complained of no symptoms, but said he felt very strange, as though he "had just woke up from a long sleep."

The history obtained from his friends was that for eight or nine months he had complained much of sleeplessness, otherwise seemed perfectly well, being able to continue with his duties. This sleeplessness, I may here add, was more or less marked for several weeks after his admission into hospital. In the early part of October, 1884, whilst, as was his custom, patient was waiting at table, it was noted that he was somewhat confused, and did not seem to comprehend what was said to him, as he made several mistakes. About an hour after the above change had been remarked in our patient, he had a fit, a detailed description of which, I regret to say, I have been unable to obtain—suffice it to say, that the body generally was affected by the seizure. After completely regaining consciousness, he still appeared strange, and remembered nothing of what had happened before the fit. That night patient is said to have slept well. Next morning his memory still continued very faulty, impressions speedily vanishing. He conversed well, and seemed to appreciate everything that was said to him. This incapacity, continuing four or five days, gradually improved, and in the course of two weeks patient had apparently recovered, his memory seeming as retentive as ever. In November, nearly seven weeks after the first fit, patient, without evincing, as before, a pre-epileptic change, had two fits in succession, and remained unconscious for nine hours. A mental defect was again observed, which, however, it is said, completely disappeared in about ten days.

Patient's previous health had always been good; ten years ago he had syphilis. His father had been a heavy drinker, otherwise the family history was unimportant.

Patient was not known to have had any fit since November. His condition on December 3, the date of his admission into hospital, was as follows: He is highly intelligent, and answers readily questions regarding himself, which refer to a remote date. The present is a blank. He remembers nothing regarding to-day; not even who accompanied him to the above institution, nor how he has come here. He is quite conscious of his failing, and says his "brain is foggy." The right pupil is larger than the left; both, however, are of fair size. They react readily to accommodation. The left responds well to light; the right, by itself, not at all, but in association with its fellow the response is active.

In his eagerness to prove a certain amount of mental capability, patient detailed important facts relating to his wife, family, and relations, which I shall now mention, as they reveal well his true mental state. His wife, he said, had borne two children, the names of which he gave, adding at the same time that she was again pregnant. This was so far true, but the interesting point is that she was delivered of her third child the day following that on which patient had his first fit. He also stated that all his sisters were married except one. I subsequently learned that she, too, was married, and had been for nearly five months; and not only this, but also that patient himself, as her eldest brother, had given her away in marriage. It is, therefore, evident that impressions received for a longer or shorter period before the first known fit were more or less transitory and fleeting.

For several weeks after his admission, he was quite unable to find at any time his bed in the ward. This, he said, was due to the fact that he had been so often required to shift. The truth, however, is that he slept in the same bed during his whole stay in hospital. Daily, in company with one of the attendants, patient enjoyed outdoor exercise, and frequently traversed the busy thoroughfares of London. He had previously spent the greater part of his life in the country, yet the marked change in scenery and surroundings left little or no impression, as he was utterly incapable of recalling whether he had journeyed in fields or streets. Gradually, but in a somewhat peculiar way, a change for the better was evinced, patient being able to recall the incidents towards the close of the following day.

He frequently communicated with his wife by writing, but invariably at first repeated himself several times in the course of the same letter. Eventually amendment was noted, and has steadily increased, so that now his letters are quite connected and without a flaw.

Varicosity of the Lingual Vein as a Diagnostic Sign.

Dr. G. Cecil Dickson thus writes in the *Brit. Med. Jour.*, May 2, 1885:

Much has been written on what the physician may learn from an inspection of the cavity of the mouth, but I have found no reference in works on diagnosis to the state of the lingual veins being indicative of other more important vascular changes.

Under certain conditions, and especially in elderly persons, the ranine and lingual veins are remarkably dilated and varicose; they are much enlarged, and present many bulgings, which extend in a racemose manner to the edge of the tongue. This is most easily observed by directing the patient to place the tip of his tongue against his upper incisor teeth; the main vessels will then be seen, but the branches will be better observed by its being turned somewhat to one side. In the following two cases, this condition was most marked.

D. T. had, in 1880, when aged 79, an attack of right-sided hemiplegia, with aphasia; and, since then, had been liable to frequent attacks of unconsciousness, accompanied with lividity of the face, twitching of the limbs, and great irregularity of respiration. He was stout and florid. The lingual veins were remarkably varicose, and so large as to project from the edge and be seen from the dorsum. The pulse was weak and irregular. In 1884, he had senile gangrene of the right leg, and died, six weeks afterwards, in one of his convulsive attacks.

G. M., aged 83, had an attack of aphasia in May, 1884. He recovered, but since then his face frequently became much flushed, and his speech confused. The lingual veins were much dilated and varicose, and especially on the left side. The heart's action was weak and irregular, and occasionally there was a mitral systolic murmur. In February, 1885, he died in an apoplectic attack, accompanied with right-sided hemiplegia and cerebral breathing.

In these two cases, the condition was evident, and, although there was no necessity to indicate the lesion, yet death certainly resulted from vascular changes in the encephalon, probably either thrombosis or hemorrhage; and they indicate to us, what theory would also suggest, the diseases that are liable to occur when this varicose state of the veins is present. The lingual vein being a branch of the internal jugular, will indicate the state of the blood-current in it, and so will approximate to the state of the brain-sinuses, the veins of Galen, and, indeed, the whole intracranial venous system. Distension and varicosity of the linguals will become associated with passive congestion in them, precisely the conditions in which thrombotic and hemorrhagic lesions are apt to occur.

Its cause is indicated in these cases, as in several others I have observed, by the state of the heart, which was beating feebly and irregularly, just the condition which tends to produce venous congestion.

The appearance of the capillaries and veinlets in the nose, lips, and ears, gives us a clue to the state of the circulation of the head; but the lingual vein, from its large size, is specially manifest, while, from being covered only by mucous membrane, it is clearly seen—and, moreover, by being thus so fully supported externally, it will most readily yield and bulge from internal causes. It is difficult to see what local causes in the mouth could induce it, and it is thus contrasted with the saphena vein, varicosity of which more usually arises from some pressure either in the limb or in the abdomen, and, also, the latter, belonging to the inferior canal-system of veins, will not indicate the cerebral state as the lingual.

Just as varicosity of the hemorrhoidal veins at the other end of the alimentary tract points out the state of the portal venous system, so a varicose condition of the lingual becomes indicative of a dilated state of the whole jugular system.

Like other diagnostic signs, there is a wide limit, varying at each age, within which this may occur in health. It is only an exaggerated varicosity that would seem to be prognostic. It does not always accompany the arcus senilis; that suggests rather arterial anæmia than venous hyperæmia.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. G. Beck's *Therapeutischer Almanach* has now reached its twelfth annual number, and appears with its usual amount of condensed notes on the progress of therapeutics during the year. It is always well compiled, but is too much condensed for most readers. Published at Bern by Schmid, Frank & Co.

——Dr. T. G. Comstock, of St. Louis, in a reprint before us, advocates the use of alcoholic stimulants and cold in scarlet fever as very valuable auxiliaries to the treatment of that disease.

——Two articles by Dr. James B. Hunter, of New York city, will be of interest to gynecologists. One is entitled "Ovariotomy," the other "Fifty Cases of Abdominal Section." They are reprinted from the New York *Medical Journal*.

——A positive step in advance in the pathology of endocarditis is made in the Gulstonian lectures of the present year, which were delivered by Prof. William Osler, of the University of Pennsylvania. His subject was "Malignant Endocarditis," and a very convenient reprint of his lectures, taken from the *Brit. Med. Jour.*, has appeared. Those who would like to learn the results of the latest studies on this topic will do well to read it.

——We note with pleasure the appearance of two more of the suggestive studies in mental pathology from the pen of Dr. C. H. Hughes, of St. Louis. Their themes are the neuropathic conditions and treatment of cancer, and "A Case of Psycho-sensory Insanity."

——All parents should be interested in a lecture by Dr. Keating, published at Holmesburg, Pa., by Dr. W. H. Morrison, price twenty-five

cents, with the taking title—"How to Feed the Baby." It is very practical and useful, and deserves to be widely read.

BOOK NOTICES.

Clinical Studies on Diseases of the Eye, Including those of the Conjunctiva, Cornea, Sclerotic, Iris, and Ciliary Body, by Dr. F. Ritter von Arlt, etc. Translated by Lyman Ware, M. D., etc. Cloth, 8vo. Illustrated, pp. 385. Price, $2.50. Philadelphia: P. Blakiston, Son & Co., 1885.

For nearly forty years Prof. Arlt, of Vienna, has ranked among Germany's most successful teachers in diseases of the eyes. Both as a writer and as a practitioner, he has achieved a fame as extensive as the bounds of the civilized world. The result of this long practice is presented in the work before us. As the translator observes, it is the essence of an experience which reaches over half a century.

Beginning with the inflammatory affections of the conjunctiva, he passes to those which are non-inflammatory, and then to diseases of the cornea, of the sclerotic and the iris. His style is condensed but clear, and his pages contain a vast amount of information couched in such language that it will be equally instructive to the general practitioner and the specialist.

The translation is carefully and well made, and the publishers have taken pains to present the volume in a highly attractive style of manufacture.

Transactions of the New York State Medical Association for the year 1884. Vol. I. Edited for the Association by Austin Flint, jr., M. D. 8vo., pp. 653. New York: D. Appleton & Co.

It will be understood that there are two State Medical Associations in New York, the one accepting the "code," the other rejecting it. The present volume prints the code as its rule of action. It may therefore be considered the "regular" society, while the other was and is a vehicle for specialists and others who wish to consult with all genera of so-called doctors.

The volume which is offered as number one is a most promising guarantee for the future usefulness of the Association. It has a large list of papers, nearly all of them of the first order of merit, and generally the result of original research. They are fifty in number, nearly equally distributed over the fields of surgery, medicine, and obstetrics. The appearance of the volume is much superior to that generally seen in society transactions, and in this respect corresponds to its contents. The careful type-reading and judicious arrangement of the material, show that the editor has done his part of the work with scrupulous fidelity. Certainly, if the Association continues to issue volumes of equal merit, the profession will have reason to be glad of the circumstances which brought it into existence.

A Treatise on Abdominal Palpation as Applied to Obstetrics, and Version by External Manipulations. By A. Pinard, etc. Translated by L. E. Neale, M. D. 8vo., pp. 101. New York, J. H. Vail & Co.

The translator justly remarks that there is a deficiency of information in accessible American writings with reference to the practical applications of the abdominal touch. It is an extremely important procedure in obstetrics, and we are inclined to believe that it is by no means appreciated at its proper value among the mass of American obstetricians. This convenient short treatise will introduce it in a commodious manner. It is plain, well illustrated, and gives the needed details in a highly satisfactory style. We recommend it to our readers who are engaged in the practice of midwifery.

Annual Report of the Secretary of the Navy for the Year 1884. Vol. II. Washington, 1884.

The fullness and accuracy of the reports contained in this volume speak well for the excellent training of the medical staff, as indeed is universally recognized by all competent judges.

Besides the general sick reports from the various vessels, there are a great many interesting details about the sanitary and climatic character of the ports visited by our ships during the year. Their principal diseases are noted, their hygienic surroundings, and the condition of medical men and matters. We find that the results of the English contagious diseases acts with reference to prostitution are usually very favorable wherever they have been introduced. Women as physicians are destined to achieve great success in Asia. The co-education of the sexes in the Indian medical college has turned out very well; and many more instructive details may be discovered in these official reports.

What to Do in Cases of Poisoning. By William Murrell, M. D. 12mo., pp. 212. London, H. K. Lewis, 136 Gower street. 1884.

This little manual has reached its fourth edition, which speaks well for the care exercised in its preparation. Both in the arrangement of the material, and in typographical display, it is successfully aimed to convey all requisite information in the quickest and easiest manner possible.

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FORCED PERSPIRATION AS A THERAPEUTICAL MEASURE.

Dr. Wachsmith, of Berlin, in a series of articles in the *Allgem. Med. Centr. Zeit.*, March 28, 1885, highly recommends the forced withdrawal of fluids from the circulation of patients suffering from infectious diseases. He employs for this purpose profuse perspiration artificially induced, and believes that the blood becomes more concentrated in salts, and is thus in a condition which is unfavorable to the multiplication of pathogenic germs.

He has made use of this method in diphtheria, and to judge from his reports of cases, he has been very successful. Of special interest, however, are some cases of trichinosis which he mentions, and which seem to indicate certain procedures by which the infection of the whole system, after trichinous meat has been eaten, may possibly be avoided. The cases are as follows:

Five years ago, in Fruchtstrasse, in Berlin, several persons became sick from the use of pork. The cases were at that time shown to Dr. Eulenberg. Four of them became severely ill; in two a colony of trichinæ developed itself in the muscles of mastication, gave there rise to abscess formation, and thus ended the disease, the parasites not entering the general circulation. One woman, who, after swallowing the diseased pork, had complained of a peculiar sickly feeling in her stomach, at once sent for a quarter of a pound of salt-sardelles, and scarcely waiting for the removal of most of the salt by repeated washings, ate the whole quantity, and never became affected with trichinosis. Another woman suffered from large swellings on both arms and from intense pains—the trichinæ having evidently migrated to those parts. W. employed, locally, mercurial ointment, and internally large doses of muriate of ammonia, so that daily, several times, the most profuse perspiration set in. By the fifth day she had completely recovered.

Of somewhat similar importance is the following case, where forced sweating was also employed, and where instead of the salt-sardelles muriatic acid seems to have acted as a prophylactic.

In Zechin, in Prussia, the members of a family all sat down to a festival dinner in honor of the christening of the youngest child. They partook of fresh meat and sausage, derived from a hog killed the same morning. All became sick. Five days after the sumptuous meal, one of them, a man by the name of Abel, sought Dr. W.'s advice. He was suffering from pains and swellings of both arms. On W.'s inquiry whether he had eaten pork, A. denied having done so, but the next day he returned and informed the doctor that he had meanwhile heard that all his relatives that had been present at the christening had become sick with trichinosis, and that he now remembered his having eaten pork and sausage partly made of the same. As A. besides complained of great want of appetite, W. ordered him to take diluted muriatic acid, and advised him to enter the hospital. About a year later A. came back to Dr. W., this time to consult him about some other disease. He then told W. that he at that time had not entered the hospital, but simply contined the medicine, and taken something to make him sweat, and that by the third day he had totally recovered. One of his brothers had been taken sick the same day as he, and had suffered from the same symptoms. He too took the muriatic acid, and profusely perspired, the result being even more rapid than in A.'s case, all the morbid phenomena disappearing by the second day.

In the beginning of this century, forced sweating was a favorite therapeutical procedure with physicians, and it may be well occasionally to try it in cases of this kind. When the trichinous meat is still in the stomach, muriatic acid may well serve as an antidote by killing the trichinæ. It too deserves a trial.

THE BRAIN AFFECTION COMPLICATING PNEUMONIA.

Cerebral symptoms are often met with in pneumonia; most frequently, however, in children. It can scarcely be doubted that the so-called croupous, or acute, or lobar pneumonia is an infectious disease; even those authors who do not yet recognize the specific coccus as the pathogenic element of this febrile disease, acknowledge the infectious character of the latter. This subject has frequently been discussed in this journal, and is only mentioned here. The moment we adopt the view of modern bacteriologists, the explanation of the cerebral symptoms becomes easy. We can well imagine how but a few of the pathogenic pneumococci may give rise to only a mild disturbance of the mind, and it is thus that we have to interpret the slight confusion and the occasional abberration of the mind so often observed in acute pneumonia. Often, however, the group of symptoms belonging to the lung affection proper, almost disappear in comparison with the cerebral complication, *i. e.*, the symptoms of the latter are so prominent that those of the lung disease are apt to be lost sight of. This is especially the case in children from the very beginning of the infectious malady, the fact being well known that physicians not well acquainted with the picture which this disease so frequently, we might say so generally, assumes in childhood, often diagnose a cerebral disease, while, indeed, acute pneumonia is present. In adults, the cerebral complication usually does not appear at the outset of the pneumonia, but shows itself later on; it then is commonly described as œdema of the brain. But that this œdema is often based upon an acute inflammatory process, and that the ravages in the brain in such a case may be very extensive is less widely known.

In this respect an article is of interest, which Dr. H. Barth has recently published in the *Union Méd.*, 1885, No. 179. He has observed a series of cases of the kind described, and as a result of his investigation he has arrived at the following conclusions:

In adults meningitis, as a complication of pneumonia, but seldom appears in the beginning of the disease, but usually from the fourth to the sixth day, sometimes still later, and even after the fever has ceased; it is often overlooked or wrongly interpreted. Of importance is the peculiar influence which this meningitis has upon the bodily heat of persons suffering from pneumonia: while the fever still is at its height, it often sud-

denly declines one or more degrees, but if the febrile period has already ceased the temperature rapidly ascends up to 103°–105°. Headache, delirium, a certain amount of contracture of the neck-muscles, lowering and irregularity of the radial pulse, are some of the usual symptoms indicating the cerebral complication; but these may be totally absent, and then the brain affection is characterized by somnolence and dullness of the mind, so that it almost becomes an impossibility to recognize the cerebral malady. Soon coma develops itself, and death sets in from one-half to four days after the onset of the brain-complication.

At the post-mortem one is surprised at the great extent of morbid lesion which, although usually having as its seat the convexity of the brain, mostly also spreads over the base, and frequently over the spinal cord.

This meningitis complicating pneumonia varies greatly in its intensity and frequency in different epidemics and in different localities; it is mainly observed in debilitated individuals, and is, without almost a single exception, a fatal disease. B. also believes that the same coccus that produces pneumonia is responsible for the cerebral inflammation.

SUMMER HEALTH RESORTS.

With the arrival of summer we observe in the newspapers, and receive by mail the usual number of announcements of summer health resorts. They contain the customary quantity of indiscriminate self-laudations, and hold out the customary promises of benefit in a large variety of complaints.

The majority of persons who are led by these roseate statements to pass some time at these resorts will came away sadder and wiser people. They will discover that the beds are cheap, the table either coarse, or, what is worse, offering a very inferior imitation of French cookery, the attendance will be scanty, and about the only element that will go beyond their legitimate expectations will be the size of the bill.

This is so constantly the case in this country, that it becomes a rare exception to find a summer resort which one thinks well enough of to visit twice. The advertisements are often mendacious, and always exaggerated.

The reasons are obvious. We are not yet far enough along in this country for our people to appreciate the value of competent and disinterested scientific testimony as to the value to health of certain localities; so the whole matter is left to the greed of innkeepers, who want to clear as much money in three months as their business could legitimately give them in a year.

Even physicians, residents in one of these localities, are apt to be biased by their interests or prejudices. What is needed is an official investigation of the advantages offered by different localities in different diseases. This belongs to the duties of a State Board of Health, and some of these boards have made a beginning in this direction. A great deal, however, remains to be accomplished, and until it is done both physicians and patients will have to continue at the mercy of the interested hotel-keeper.

INOCULATION FOR CHOLERA AND YELLOW FEVER.

News comes from Vera Cruz that the Government has been so well satisfied with the results of inoculation for yellow fever that it has ordered all the garrison to be thus protected. The operation is claimed to confer immunity for five years; but this must be a theoretical period only.

Meanwhile, the latest advices from Spain seem still to be favorable to the effects of cholera inoculation. A correspondent of a New York daily states that the latest report from Alcira shows that during the first half of May there were seventy-one "suspicious cases" in a population of 16,000, and that of these thirty died, fifteen recovered, and twenty-six remain ill. Five thousand four hundred persons have been inoculated, and of these but seven have had choleraic attacks; these seven persons were, moreover, taken ill within thirteen days of their inoculation, or before the virus had full time to act its part, and

no deaths of inoculated patients have yet occurred. The report shows one cholera case for each 165 uninoculated persons, and but one case to each 770 inoculated persons. Moreover, a death-rate of one in 353 among the former, as against no deaths among the latter. This showing is, however, more than fair to Dr. Ferran, as it supposes all the inoculations made on May 1, which is not the case, and leaves out of account the fact that the most cautious and well-to-do are most apt to avail themselves of such precautions, while the death-rate is largest among the opposite class.

The Minister of the Interior has announced that a commission of eminent physicians would soon be appointed by the Government to investigate Dr. Ferran's discoveries and the preventive value of his system of inoculation. Till this report can be prepared, granting State money to Dr. Ferran seemed unadvisable. The Government would, however, gladly defray Dr. Ferran's expenses in India if he chose to study the true cholera there. Many Spanish physicians express distrust of Dr. Ferran's discovery. They call him an unbalanced enthusiast, but the weight of public opinion, as shown by the newspapers, inclines to faith in his inoculations.

Notes and Comments.

Some Peculiarities of Measles.

During a discussion on a recent epidemic of measles, which we find recorded in the *Cincinnati Lancet and Clinic*, February 28, 1885, the following points were made:

Dr. Eichberg remarked that recently he had attended a child with a second attack of measles, occurring within a month after the first. The first attack was unusually severe; there was considerable cerebral difficulty, and at one time the temperature was 104.5°, so that the case was somewhat dangerous; but the boy got well and returned to school. In a few days he was again seized with all the manifestations of measles, the eruption, however, disappearing altogether within two days. The speaker was inclined to attribute the second attack to infection contracted at school.

A peculiarity of measles this season is their tendency to be followed by pustular eruptions and boils in various parts of the body. Another feature worthy of attention is the large proportion of adults who at present became affected with measles. During the past week seven adults suffering from this disease have been admitted to the hospital, of which number one has died. There is also a great tendency to pulmonary complications after the fever and eruption have disappeared. In the speaker's experience diarrhœa had been most severe in the second week.

Dr. Stanton said that the second attack of measles may be classed under two heads—those in which the disease returns very soon, which is in reality a relapse, some of the poison remaining in the system after the primary attack; and those in which the return is after a long interval, and due to a new infection, as in the case mentioned by the previous speaker.

Dr. Taylor said that in the present epidemic diarrhœa is an unusually frequent complication. Another point of interest is that the prodromes are remarkably protracted; brain symptoms, somnolence, etc., continue a long time before the appearance of the eruption.

A third noteworthy peculiarity is the singular malignancy which prevails this year. The fatality is very great, and the laryngeal complications are unusual. A larger number of sequelæ than usual characterizes measles this winter; otitis is very common, though in the speaker's experience conjunctival complications are not so frequent as is usually the case; cough also is rather trivial.

The speaker agrees with other members that the frequency of relapse this year is remarkable.

Dr. Davy believed that measles is the most self-protecting disease which prevails, more so than small-pox. It is a very easy matter to call any simple eruptive disease measles, although it may be something very different. Under such circumstances a large number of so-called relapses may occur. During the present epidemic, however, the speaker has had a number of cases which were undoubtedly recurrences of the disease. The various peculiarities in the clinical history of measles this year, as described by previous speakers, the doctor has also observed.

Dr. Stanton remarked that measles are generally regarded as self-protecting; recurrences are most frequent during epidemics. In the army the speaker's experience was somewhat different from that of Dr. McReynolds, the attacks being almost always the first that the man had had. Abscesses occur oftenest in epidemics of the vari-

ous exanthematous diseases. The speaker has had one case, that of a physician of this city, in which measles was followed by dysentery, and, in fact, by extensive ulceration throughout the whole intestinal tract. The hemorrhages were excessive, so that upon two or three occasions the patient almost bled to death.

Dr. Groesbeck said that a matter of interest on this subject had been brought out by the discussion last night in the Academy, namely, that those soldiers who had measles while in the army came principally from the rural districts; and it was inferred from this that these were usually first attacks, since the men coming from city districts where epidemics of measles are common, had, in all probability, had the disease already.

Dr. Heighway, referring to his army experience in Mexico, in 1846, said that soldiers from the rural districts suffered most. At one time the army was encamped upon a ridge along the Rio Grande, the soldiers coming from various States, Illinois, Georgia, Indiana, Missouri, and others, and with them all, the disease was most prevalent and fatal among those who came from the country districts. The only way to account for this was the assumption that they had lived in thinly-populated districts, and thus escaped the contagion of epidemics in childhood. The only medical treatment the soldiers received was syrup of ipecacuanha, which was proved to be a most successful remedy.

Electrolysis in Stricture of the Urethra.

We have frequently had occasion to refer to the use of electrolysis in the treatment of stricture of the urethra. In the hands of some it has seemed to prove very beneficial, and converts to its merits are being constantly made. Dr. Robert Newman publishes a paper on this subject in the *Journal American Medical Association*, April 25, 1885, in which, after reporting one hundred cases, he says that these and many other reports of cases speak for themselves, so that at the present time 1,000 could easily be collected, and that the most fastidious medical skeptic ought to be convinced by this report of one hundred cases cured without any relapse during three to eleven years' careful observation. By such unique good results the method of electrolysis in the treatment of stricture of the urethra is fully tried and established, and every day brings new converts and makes new friends.

He thus formulates the details of treatment:

1. Begin the use of electrolysis carefully; do not cauterize, only absorb; in many cases the current of six cells will suffice.

2. Regulate the power and current of electricity according to the susceptibility of the patient.

3. Repeat séances in intervals not too frequent in succession.

4. Do not grease the bougie with substances which are non-conductors, and would insulate.

5. Wet your electrode sponges with hot water; keep the plates in the battery fluid only during the operation.

6. Never use force with your bougie; never cause hemorrhage.

7. Do not operate while the urethra is in an acute or even sub-acute inflammatory condition, or when it is too painful.

8. Use your battery fluid weak.

9. Never use two bougies in succession with electrolysis during one séance.

10. Practice at first only one method by absorption. "*Weak currents; long intervals.*"

Vomiting of Pregnancy.

Nausea and vomiting are very common symptoms belonging to the pregnant state, so common that women will frequently recognize the condition in which they are from these gastric phenomena, and they often do so before the cessation of the menses has given them a more reliable proof of their being pregnant. These gastric disturbances generally appear only during the earlier months, and, as a rule, cease as soon as quickening sets in. These symptoms, also, mostly are more annoying than dangerous, and usually easily controlled. And yet every physician occasionally meets with cases where the vomiting is not only incessant, but also unamenable to treatment, and, at times, cases happen where life is threatened. This is so well recognized that the law in Prussia permits, under such circumstances, the physician to induce premature labor.

Probably every remedy of which the least effect could be expected has been tried in grave cases of this kind. For a while cauterization of the external os of the uterus was in fashion, and of late, stretching of the neck has been highly recommended. Dr. Adrian Schückling (*Allg. Med. Centr. Zeit.*, March 28, 1885,) has tried the latter operation in a series of cases, but found it invariably useless. Instead of it, he recommends the injection of carbonic acid, especially of those mineral waters which contain besides small quantities of iron a great amount of carbonic acid,

into the rectum. In the article mentioned, S. reports a number of cases in which every known remedy—the operations included—had been tried in vain, and where life was really threatened, and where ultimately the injection of carbonic acid, in the form described, established a complete and permanent cure. As the presence of iron in these mineral waters does not seem to be essential, Apollinaris water may be the best to use in these cases.

Hereditary Chorea.

Dr. Clarence King contributes an interesting article on this subject to the *N. Y. Med. Jour.*, April 25, 1885, wherein he thus sums up the therapeutic considerations:

"The therapeutic indications would be simple, but by no means unimportant. Rest at night should be secured by means of opiates. The bowels should be kept regular by mild laxatives. If the patient is anæmic, tonics should be administered—quinine and iron. Strychnine or arsenic as a nerve-tonic should be given, continued for a long time, and, in a certain proportion of cases, improvement would undoubtedly follow. But he would lay particular stress on the hygiene and surroundings of the patient. He should be in a healthy locality, have plenty of wholesome diet and at regular hours, take moderate exercise in the open air daily, and at night have at least eight hours' undisturbed sleep.

"But after the disease has become fully developed, there is little or nothing we can do that will give any benefit to the patient. The free use of tonics will probably give as much benefit as anything. Electricity has been employed as a spinal tonic, but without favorable results. In the last stage we should nourish the patient as best we can, perhaps giving cod-liver oil, and keep him as quiet as possible, treating on general principles other indications as they arise."

Foreign Bodies in a Hernia.

A sixty-year-old man came to Dr. S. Storker (*Corresp. f. Sch. Aertzl*, 1885, No. 17), with all the symptoms of strangulated hernia. Palpation alone revealed the fact that substances of an unusual kind were embedded in the inguinal hernia, which was of the size of a peach. The hernia was opened, and found to be completely filled with frog thighs, the patient patient having eaten the day before a whole plateful of this uncommon dish. The suture applied did not endure, although disinfected carbolized silk had been employed, and an intestinal fistula resulted, which healed after an existence of three months. In the report quoted, S. cites a number of similar instances. In nearly all cases mentioned in medical literature of impacted foreign bodies of bony and irregular structure, where an opening of the intestine had become necessary, an intestinal fistula of some months' duration, though final cure, seems to have been the invariable result.

Special Report.

OPHTHALMOLOGY.—NO. XVIII.

BY CHAS. S. TURNBULL. M. D.,
Of Philadelphia.

The Transactions of the American Ophthalmological Society, which held its twentieth annual meeting at the Catskills in the summer of 1884, is a volume containing an immense amount of valuable material to most medical men; and as the number of those who are so fortunate as to see the report of these transactions must necessarily be limited, we have abstracted much that is of practical worth, and where we have not quoted more fully can only regret that want of space prevented.

The President of the Society is Dr. Wm. F. Norris, of Philadelphia, and it was decided to hold the next meeting at New London, in July of 1885. The Society now numbers eighty-seven members, from all parts of the United States, and of this number thirty-one were present, and the interest evinced in ophthalmology in general was proven by the variety of valuable papers presented.

The first was on *Iridectomy in Chronic Iritis*, and was contributed by Hasket Derby, M. D., of Boston, and our only regret is that we are not able to quote in full this interesting and instructive paper. He says: "Cases of recurrent iritis are familiar to us all. The patients are many of them young, with the world before them; handicapped as they enter upon the race of life with a painful and dangerous disease that may befall them at any moment, and is certain for several weeks to interrupt all their pursuits. Treatment is simple and efficacious where it may be had. But the question is, as to whether prevention is possible. Does iridectomy cure or ward off the disease? Instances of its performance in these circumstances are so rare, and the subject is of such importance, that I do not hesitate to present to the Society the notes of even a single case related, if not actually belonging to this family, carefully followed for the past four years and

furnishing an instructive commentary on the question just raised.

"November 13, 1880, there came to consult me Miss D., about sixty years of age, and in perfect health. She had never experienced the slightest touch of rheumatism, and at the time of, as well as for some time preceding her visit to me, had been as well as usual. She now complained of a 'cold' in the left eye, which she said had lasted three weeks, unattended by pain, and characterized mainly by redness and slight dimness of vision. I found much ciliary injection, and numerous posterior synechiæ in this eye. No treatment of any kind had been resorted to. Under atropine, a shade, and rest of the eyes, the synechiæ were broken up, the redness rapidly disappeared, and the eye was as well as ever in five days.

To make a long story short, she had, between January 1st and June 3d, 1881, nineteen attacks in the right eye and fourteen in the left. They would last from one or two days to a week each, be attended by comparatively slight pain or lachrymation, but were always characterized by a tendency to the formation of numerous synechiæ, readily yielding to a mydriatic. These attacks ordinarily alternated, though sometimes three or four would occur in the same eye, in rapid succession. For their treatment the various mydriatics were at different times employed, tonics, alteratives, and mercurials given alternately, and on one or two occasions a course of pilocarpin injections was gone through with. Nothing whatever made the slightest difference in the character or frequency of the attacks, which yielded more or less readily to mydriatics, and manifested a tendency to return as the effect of the mydriatic began to pass away.

"June 3, 1881, I ordered atropine to be applied daily through the mouth. This was kept up till July 6th, each eye the while remaining absolutely free from inflammation. Eight days after the atropine was discontinued, a severe attack came on in the right eye. It was now resolved to keep each pupil dilated for a considerable length of time, in the hope of breaking up the tendency to inflammation. Atropine was accordingly ordered three times a week, in each eye, the patient following me to Mt. Desert, both for the change of air, and that her case might remain under observation during my absence from the city. For two months this plan was carried out, the eyes remaining perfectly free from redness, except on one or two occasions when the atropine was accidentally omitted.

"In February, 1882, I discovered a slight but distinct excavation, peripheric and partial, of the left optic entrance. There was neither arterial pulse, increased tension, or limitation of the field. Atropine was in consequence no longer employed regularly, but reserved for emergencies. The attacks continued as before—on March 8th, the left eye proving unusually obstinate, and leaving several synechiæ, both above and below, that resisted mydriatics.

"I lost sight of her now until May 3d, when she reappeared, informing me that for several weeks she had been in New York and treated by Dr. Knapp. He wrote me that the attacks had continued, but been mild and transient. Eserine and homatropine had been alternately used, on account of the peculiar condition of the left eye. Tension continued nearly or quite normal, and the excavation did not increase. Under these circumstances he did not think an iridectomy indicated, and gave no encouraging prognosis as to the future of this case of recurrent iritis, as he clearly considered it.

"Soon after, Miss D., having been under observation eighteen months, sailed for Europe, carrying from me a letter to Professor Horner, in Zurich. He examined the case, agreed with Dr. Knapp and myself as to the treatment, as well as to the undesirability of an iridectomy, gave an encouraging prognosis, and dismissed the patient. Not long afterwards she found her supply of atropine exhausted, and being unable in the place where she then was to obtain a fresh solution without a prescription from a local surgeon, she consulted one. She had at the time no intention of having her eyes examined, as no change had occurred, the attacks remaining mild and transient, and vision not having fallen off perceptibly. But the gentleman she went to made an examination, informed her that she had glaucoma in the left eye, that blindness was imminent unless iridectomy was promptly performed, and pressed the operation. Surprised, and, in fact, overwhelmed by this intelligence, she consented. Four days later, glaucoma was diagnosed in the right eye, and an iridectomy done on that. Shortly afterwards a second operation was done on the left.

"The left eye was operated on October 1, the right October 4, 1882. The subsequent history of the case, as given by the patient herself, is as follows: For three months the inflammations continued, exactly as before, in each eye, an attack coming on every week. After that they grew more infrequent, and were accompanied by less

redness. Gradually, all defined attacks ceased, though slight redness would from time to time occur.

"When I saw her, in February, 1884, there had been no treatment used for fourteen months. Each eye presented a free iridectomy, done upwards. The synechiæ remained as before. Vision was from one-tenth to two-tenths in each eye. Tension, normal. Each vitreous slightly hazy, some large floating opacities in the left. Each nerve presented a wide-spread, shallow physiological excavation.

"The patient complained bitterly of intolerance of light, and of inability to accommodate herself to sudden changes of illumination; in short, of all the usual disturbing effects of an iridectomy.

"Here, then, we have a case of chronic recurrent iritis, extending over two years, and persistent to an unusual degree. We are, accidentally, enabled to study the effect of an iridectomy on the progress of the disease, which, at the time, was evidently growing less severe. And while, on the one hand, we cannot but be astonished at the tolerance exhibited by such an iris toward such a serious operation, it must, on the other, be admitted that there was no immediate effect on the disease, and that in all probability the ultimate cessation of the symptoms was due to the fact that the malady had worn itself out, and was self- rather than artificially-limited. In view of all the circumstances, I am unable to persuade myself that the iridectomy did any good here, or would be justified in another similar case."

In the discussion which followed the reading of this paper, the remarks of Dr. H. Knapp are important. He said:

"Iridectomy in chronic iritis has been frequently made, and often resulted badly. There is not the slightest doubt that in many cases iritis will relapse for years, but finally get well. I accidentally saw a young lady in this hotel who for five years had many attacks of iritis. She has now perfectly recovered. In some of these cases of recurrent iritis iridectomy is performed, nevertheless the attacks continue for years. Iridectomy is a remedy, but not a sure one. From the experience which I have had I restrict it to those cases in which, besides the iritis and adhesions, there is a tendency to cyclitis and glaucoma. I think that under such conditions iridectomy is indicated beyond dispute. As long as the iritis remains simple, with a limited number of adhesions, and a part of the pupil moves freely, I do not, as a rule, perform iridectomy. I do think that iridectomy is a remedy which, if it does not always prevent the attacks, mostly diminishes their frequency, and, on the whole, has a good effect. A few years ago the same question came up at the Heidelberg Congress, where some of the more experienced oculists took the ground that it favored an extension of the process, and they were much averse to it. The decision whether or not iridectomy should be performed depends greatly upon the course and the gravity of the disease."

(*To be continued.*)

Correspondence.

The Treatment of Diphtheria.

Eds. Med. and Surg. Reporter:—

I see in the Reporter of April 25, that Dr. Cortes adds his testimony as regards efficacy of the abortive treatment of diphtheria by the use of calomel. He has recently treated five cases, including his own, with only one death.

I presume that there are but few persons living who have treated more cases of diphtheria than I have, from 1860 to 1865, in and about Trenton, Tuscarawas county, Ohio. Nearly every member of every family in and within three or four miles of town had it some time during the time above mentioned. I think I must have treated somewhere near a thousand cases. My treatment was something like the following: I first gave a full dose of calomel, and followed it with a full dose of castor oil in two or three hours. After that had operated freely, I gave as much quinine as would break an ordinary case of ague, as everybody there was full of malaria. After the first day I reduced the quinine to about one-third, divided in three doses, and gave one before every meal, or three times a day, and at the same time gave muriated tr. of iron ten to fifteen drops every four hours, in water, and used also as gargle a solution of chlorate of potash. I continued the tr. of iron and quinine two or three weeks.

Local treatment I considered very important. In cases with deposition of an ash color, and surrounded with swollen tonsils of a dark erysipelatous character, I applied with a camel's hair pencil a saturated solution of nitrate of silver (60 grs. to the ℥) to the deposition and surrounding surface once in twenty-four hours. In milder cases I used a solution of tannin, or alum, or some other astringent application with brush. In some severe cases nothing seemed to do as well as the salt, pepper, and vinegar gargle, recommended in the United States Dispensatory.

Treated as above stated, there were no afterclaps, such as paralysis, and no dropping dead. But in some cases, after the throat affection was cured, the patient would mope around a few weeks without an appetite, and apparently starve to death. In cases in which the larynx is invaded with all the symptoms of croup, I lately used and depended on the muriated tincture of iron given in milk with an unsparing hand.

To a child three or four years old I gave two

to three drops of tr. fer. mur. in a dessertspoonful of sweet milk every five minutes during waking hours, and every fifteen minutes during sleeping hours. In less than twenty-four hours the pseudo-membrane began to break down and come away in shreds.

Of the only three cases that I treated with tr. of iron and milk, as above stated, and succeeded in breaking up the false membrane, and saving the patient from dying, two made a good recovery, and the other one died in about three weeks from inanition.* To a patient ten years old I gave five drops every five minutes in a tablespoonful of milk.

The treatment of diphtheritic croup with tr. of iron and milk is not original with me, as I derived it from the MEDICAL AND SURGICAL REPORTER, I think, some twenty years since, but failed or neglected to try it at first. I believe it will succeed four out of five times in removing the false membrane in from twenty-four to forty-eight hours. I only tried it in three cases, and succeeded in all in less than thirty-six hours in breaking down the false membrane completely. All who tried the mercurial treatment soon abandoned it as useless if not injurious.

Taking all the cases as they appeared, we lost, perhaps, one out of fifteen or twenty. We fully satisfied ourselves that it was not contagious. Our family all had it, excepting myself, but they took it several months apart. I was in the habit of inhaling their breath, as there is a peculiar odor in a diphtheritic breath. In one instance, when I was cauterizing a throat, the patient coughed, and the false membrane flew in between my lips, but I failed to get the disease. Although it may be contagious in some epidemics, it certainly was not so then and there.

E. A. OPPELT, M. D.

Cannelburg, Ind., May, 1885.

Castration by a Hog.

EDS. MED. AND SURG. REPORTER:—

On the 6th of last month I was called to George, twelve years old, the son of Mr. F. The lad had been injured by a large female hog. I saw the little patient about three hours after the reception of the injury, and besides being badly bruised about the legs, he had his right testicle torn out by the hog's tooth. The wound in the scrotum and tunica vaginalis was a jagged one an inch long. The testicle was hanging two inches below the scrotum, and was dry and swollen, with its cord lacerated and congested. The boy's father insisted upon my dividing the cord entirely, and completing the castration, but I decided to return the testicle. By the aid of chloroform, I succeeded in returning the cord and testicle without any trouble, and closed the wound with two sutures. I ordered iced cloths to be applied every hour. At the end of 48 hours considerable swelling ensued, and to subdue this I used tobacco poultices, applying them every two hours. The swelling began to subside, and at the end of seven days after the accident the testicle was reduced to its normal size, and the boy was allowed to resume his play. The wound healed by the second intention, and without pain. The tobacco poultice is the best I have ever tried for acute or traumatic orchitis. It is prepared by sprinkling the surface of the ordinary flaxseed meal poultice with smoking tobacco.

CHARLES S. HEFLIN, M. D.

Bealeton, Va., April, 1885.

The Early Treatment of Typhoid Fever.

EDS. MED. AND SURG. REPORTER:—

"The Early Treatment of Typhoid Fever," is the title of an article by George M. Ramsey in the REPORTER for April 25th last, and if the results obtained by him in this specific fever are due to the treatment given, it deserves universal adoption. I do not believe I have ever seen a case of typhoid fever aborted by any treatment, and I do think the patient is subjected to very great risk of the "priest" in the end, if very active medication is resorted to by his physician. Typhoid fever is a specific disease, according to Budd, derived only from a pre-existing case of the disease, while Murchison says that while usually produced in a person suffering from the disease, the *poison* may be generated *anew* by decomposing animal and vegetable matter.

There is a period of incubation, the length not known, but in most cases lasting fifteen or twenty days. In this time the appetite fails, the tongue coats up, there is depression and muscular feebleness, but the case still keeps up. Now sets in headache, chilly sensations, increasing feebleness, and now generally the doctor is called. We now have fever, mental hebetude, epistaxis, anorexia, constipation or diarrhœa, an increased cardiac action, pain in the back and limbs.

Now, I cannot see how we can consider, with these conditions present and under such circumstances, the "brain, stomach, and liver," in fair condition. Typhoid fever does not and can not "abate immediately," under any course of treatment, and be controlled so nicely as to have convalescence established in "fifteen days, or possibly ten." Given a case of typhoid fever, and it is doing well if convalescence is established in five or six weeks; and any one who can give us a treatment for this disease, lessening its duration to "ten days," or "the mortality to five per cent," deserves as much as a Jenner, a McDowell, or a Sims, which means a high seat in the "temple of fame." M. W. O'BRIEN, M. D.

Alexandria, Va., April 27, 1885.

Successive Craniotomies in the Same Subject.

EDS. MED. AND SURG. REPORTER:—

In your journal of February 7, under the title, "Successive Craniotomies in the same Subject," you very truly say that the operation is usually considered dangerous to the mother. For one, I think the opinion is an erroneous one when it is skillfully performed (and what operation should otherwise be made)? I have made the operation seventeen times during the past thirty-five years —three times each in two patients without the slightest unfavorable results.

Yours truly, D. COLVIN, M. D.

Clyde, N. Y.

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* About one-fourth of the deaths occurred from debility, occasioned by diseased digestion after the throat affection was cured. Diphtheria cannot be aborted any more than scarlatina or measles.

News and Miscellany.

State Medical Society of Wisconsin, Session of 1885.

The 29th Annual Meeting of the State Medical Society will be held at the Court House, in Milwaukee, beginning on Tuesday, June 2, 1885, at 8 o'clock p. m.

The Address of the President, E. W. Bartlett, M. D., will be delivered on Tuesday evening. Subject: "Yours Fraternally."

The committee has assurance that the following papers may be expected from members of committees and it has the promise also of other papers of interest. It is hoped that each paper read may be followed by a full discussion of the subject treated of.

TITLES OF PAPERS PROMISED.

1. Diseases of the Rectum.
2. Comparative Merits of Syme's and Pirogoff's Operations.
3. On the Commitment of the Insane to our Hospitals, with Cases.
4. Anti-Rheumatics.
5. Comma Bacillus and Its Diagnostic Value.
6. Strangulated Inguinal Hernia.
7. Illustrious Insane.
8. A Case of Glioma.
9. Treatment of Hyperpyrexia.
10. New Remedies.
11. Review of Obstetrics.
12. Conservative Methods in Medicine.

The committee of arrangements announce that members of the Society will be entertained at the following rates at the hotels named, to wit: at the Plankinton House at from $2.50 to $5.00 per day; at the St. Charles at $2.00; at the Republican at $2.00; and at the Kirby on the European plan.

Members who have paid full fare in coming to Milwaukee, will be returned by the Chicago, Milwaukee & St. Paul, the Chicago & Northwestern, Milwaukee, Lake Shore & Western, Milwaukee & Northern, and Wisconsin & Michigan Railroads, at one-fifth the usual rates, on presentation of certificates of attendance which will be furnished by the Secretary during the session.

It is earnestly requested that every member who can be present at this meeting will take pains to do so, and that each will come prepared by the contribution of papers, or by participation in discussion, to add to the interest of the meeting.

It is again suggested that each member of the Society extend a cordial invitation to such worthy practitioners as he may be acquainted with, who are not already members of the Society, to attend this meeting, and to be henceforth not only with us but of us. J. T. Reeve, M. D., *Secretary.*

President—Dr. B. W. Bartlett, Milwaukee.

Vice-Presidents—Dr. S. L. Marston, Fond du Lac; Dr. G. M. Steele, Oshkosh.

Permanent Secretary and Treasurer—Dr. J. T. Reeve, Appleton.

Censors—1885, Dr. N. Senn, Milwaukee; 1886, Dr. W. Thorndike, Milwaukee; 1887, Dr. J. K. Bartlett, Milwaukee.

STANDING COMMITTEES.

Arrangements—Drs. Jas. Dorland, S. W. French, and J. W. Fisher.

Surgery—Drs. S. Marks, W. Meacher, and H. A. Chase.

Practice—Drs. Emory Stansbury, F. W. Epley, and Wm. Fox.

Obstetrics and Gynecology—Drs. L. G. Armstrong, Samuel Hall, and H. E. Mann.

Pathology—Drs. A. B. Farnham, John Binnie, and S. W. French.

Ophthalmology and Otology—Drs. Jos. Schneider, W. H. Searles, and W. F. Whyte.

New Remedies—Drs. Geo. C. Stockman, J. M. Dobson, and G. H Fox.

Special Committee on Diseases of Nervous System—Drs. J. H. McBride, R. M. Wigginton, and S. D. Buckmaster.

Special Commttee on the Relations of the Medical Profession to Courts of Justice—Drs. F. W. Epley, J. G. Meachem, Jr., and E. M. Rogers.

On Finance—Drs. D. Mason, J. Phillips, and G. F. Witter.

Ethics—1885, Drs. E. W. Bartlett, J. G. Meachem, Jr., L. J. Barrows; 1886, Drs. J. G. Meachem, Sr., I. Manley, S. L. Marston: 1887, Drs. J. K. Bartlett, J. B. Whiting, N. M. Dobson.

Missouri State Medical Association.

At the annual meeting held in St. Joseph, May 12, 13, 14, the following papers were read:

"Asiatic Cholera," by Dr. Trader, of Sedalia.

"Atrophic Nasal Catarrh," by Dr. J. C. Mulhall, of St. Louis.

"The Neglected Precursory Symptoms of Cerebral Disease," by Dr. C. H. Hughes, of St. Louis.

"The Report on Ophthalmology," by Dr. J. H. Thompson.

"Bone Disease, and the Treatment of Cicatricial Tissue," by Dr. Lutz, of St. Louis.

"Malarial Disease in Children," by Dr. J. P. Kingsley, of St. Louis.

"The Asylum Treatment of the Insane," by Dr. Catlett.

"Morbus Coxarius," by Dr. Griffith.

"Diseases of Children," by Dr. Hanna.

"Typhoid Fever," by Dr. Wilson, of Salisbury.

"A Collective Investigation of Pneumonia," by Dr. B. F. Hart.

"Orthopœdic Surgery," by Dr. A. J. Steele, of St. Louis.

"The Determination of Sex," by Dr. Funkhouser, of St. Louis.

"Injuries to the Larger Joints," by Dr. Brooks, of Carthage.

"Report of a Case of Ovariotomy," by Dr. J. P. Chesney, of St. Joseph.

"Report on the Progress of Gynecology," by Dr. W. I. Hiddens, of St. Joseph.

The following officers were elected for the ensuing year:

Vice President—Dr. C. A. Todd, of St. Louis.

Recording Secretaries—Dr. J. H. Thompson, of Kansas City, and Dr. J. C. Mulhall.

Corresponding Secretary—Dr. F. J. Lutz, of St. Louis.

Treasurer—Dr. C. A. Thompson, of Jefferson City.

Medical and Chirurgical Faculty of Maryland.

At the eighty-seventh annual session, held in Baltimore, the following papers were read:

"Origin and Diffusion of Cholera," by Dr. Thomas S. Latimer (President).

"The Physiological Action of Drugs," by Professor H. Newell Martin, of Baltimore.

"The Report on Surgery," by Dr. Robert W. Johnson.

"The Report on Gynecology," by Dr. John Morris.

"An Obstetrical Forceps," by Dr. L. Earnest Neale.

"Experience with Antipyrin in Fevers," by Dr. John S. Lynch.

"Rectal Medication," by Dr. W. Cathell.

"The Germ Theory of Disease," by Dr. William Brinton.

"The Use of Muriate of Cocaine in Diseases of the Nose and Throat," by Dr. F. Donaldson, Sr.

"The Tonic Effects of Travel," by Dr. W. C. Van Bibber.

"The Non-necessity of Any Radical Change in the Present System of Disposal of the Dead," by Dr. George H. Rohé.

"Study of Hygiene in Medical Schools," by Dr. Jas. Carey Thomas.

"Laparotomy for Gunshot and Perforating Wounds of the Abdomen," by Dr. R. Winslow.

"Observations on the Origin and Cure of the Disease Called 'Hay Asthma' (Coryza Vasomotoria Periodica)," by Dr. J. N. MacKenzie.

"Ovariotomy," by Dr. Charles O'Donovan, Jr.

"Carbon as an Antiseptic," by Dr. David Stewart.

"Pericolitis Resulting from Perforation of the Bowels," by Dr. W. S. Maxwell.

The Faculty of Idleness.

Mr. Ernest Hart, the editor of the *Brit. Méd. Jour.*, thus writes to his journal from Malta, where he has stopped on a sea-voyage:

A letter from ship-board can but be a vain thing, reflecting the idleness to which it is the first function of "a holiday at sea" to minister. Of such a state, there are many who can think only with pity, some only with disdain. To be shut up on ship-board is captivity; but, perhaps, one which holiday-hopes and a catholic appetite render the most delightful of prisons, the least suggestive of walls and bars. Boswell said to Dr. Johnson, "We grow weary when idle;" and the laborious lexicographer replied to the effect that "that is because, others being busy, we want company; but, were they also idle, there would be no weariness; we should all entertain one another."

That is a vivid picture of life on board-ship on a cruise on summer seas. The faculty of idleness is, in my conviction, one which busy men do well to cherish and cultivate. "To possess the soul in peace" is a means of physical and intellectual health, and an aid to the development of wholesome individuality. To be happily idle is a duty much disregarded, a capacity probably insufficiently esteemed, and a factor which physicians may wisely introduce systematically into their own lives, and prescribe for their patients. Undeviating devotion to what a man calls his business is commonly rated as a part of wisdom and virtue; but, if this be true, it is also only half true; and I am inclined to agree with Robert Louis Stevenson, who, in one of his charming essays, asks whether this undeviating devotion is not inevitably apt to be sustained only by undeviating neglect of many other things; and, again, whether it is at all certain that a man's "business" is the most important thing he has to do.

At any rate, in every man's life, there arrive seasons when it is well that he should step aside from the hustling crowd and struggling combat, to breathe a quiet air, dwell in other regions of thought, and understand, by inner experience, that in life there is a duty "to be," not at all less than a duty "to do." When physical infirmities accentuate this call, it need not be altogether regarded as a misfortune: and the imperative message to go South, or to dive into the far East, which wintry winds and chilly fogs bring to some of us, might well, perhaps, be more widely received and extensively obeyed.

Diseases among Indians.

Dr. Matthews writes a very interesting article on this subject in the *Canada Med. and Surg. Jour.*, March, 1885, from which we extract the following remarks on "Old Age:"

"Old age, although a cause of death, and can hardly be classed as a disease, is seldom attained to any great degree among the Indians. Within the last twenty years there are four instances, respectively estimated at 80, 85, 90 and 100; the latter I should question. When we take into consideration the life the Indian leads, the bitter winter and scanty clothing, the continuous exercise and precarious food supply, it cannot be wondered at that longevity is not often attained. But when the history of those around a settlement is examined, the wonder is still greater that even exceptional age should be reached. Adopting the habits of the white man, without his precautions, and drinking to excess of tea, whenever they can, in place of the spirituous liquors which they formerly indulged in whenever they could get them, taking to living in houses, instead of following their old wandering, open-air life, and thus being tied to one place, a lack of food-supply follows, and a condition of semi-starvation is sustained for years, only varied by a surfeit of venison, white bear's meat, or any food that happens to be temporarily plentiful. Some form of disease sets in, and when spring comes, their surroundings are permeated with emanations of offensive matter, for which reeking putridity is not too exaggerated a term; and lying in their close, hot houses, their scurvy breath rivals the offensiveness of the immediate outside air. Can it then be wondered at that comparatively early dissolution is the result, and that the bright, beautiful winter, with its cumulative suspended poison, is but a temporary negation of the disease-laden swamp of summer."

Salicylic Lemonade.

The *British and Colonial Druggist* says that as a "hospital beverage," which has lately been found of very great value in cases of typhoid and other fevers, scurvy and gout, the following cannot be too widely known, it having been, we understand, first devised by a late medical officer attached to the Soudan expedition:

℞. Fruct. limon, No. 10.
Acid citric, ℥ss.
Acid salicylic, grs. 200.
Sacch. alb.,
Aqua, āā q. s.

Squeeze the lemons and put the juice aside; boil the fruit in half or three-quarters of a gallon of water for fifteen or twenty minutes; after standing six hours take out the lemons, and again press them before throwing the exhausted pieces away. Add the juice and citric acid to the liquid, boil five minutes, and strain. Whilst hot add the salicylic acid, and stir until dissolved. Sweeten to taste with the white sugar, and make up the bulk to one gallon with water.

Salicylic lemonade may be taken freely, either of the strength here given, or diluted with half its bulk of water. It should be freshly made every two or three days, unless it be permissible to "qualify" it by the addition of a little pure French brandy. If required to be in "bright" condition, add, when cold, a little beaten up white of egg, boil for three minutes, and filter. If found rather too harsh for some tastes, dissolve in the boiling liquid, before straining, half an ounce of Nelson's Patent Opaque Gelatine, previously swelled for five hours in cold water.

A Pen-Picture of Dr. Ferran.

A daily contemporary has the following pen-picture of Dr. Ferrán, the Spanish physician, who has been making inoculation experiments with the virus of cholera:

"Dr. Jaime Ferrán is only thirty-three years of age, and after passing through the customary curriculum at the Institutes of Tortosa and Tarragona, took his M. D. degree at Barcelona. He has been in practice at Tortosa for several years, and is already well known for his work on micro-telephony in 1878, and for his curious investigations on micro-biology and parasites, which were rewarded by the Royal Academy of Medicine in Madrid. Dr. Ferrán was sent to Toulon and Marseilles during the last epidemic of 1884, and he spent several months with German, French, and Italian surgeons, studying the epidemic, and especially Dr. Koch's comma-bacillus. Those studies impelled Dr. Ferrán to pursue his investigation, on his return to his own country, and he thus came to the conclusion that Dr. Koch had only observed one of the many stages of this microbe's successive developments. Senor Ferrán has discovered that, by submitting the comma-bacillus to certain chemical elements very similar to the bile of animals and to the gastric juice of the human stomach this microbe passes through successive and invariable stages of development, in one of which he has detected the eggs, which are, in his opinion, the real generators and propagators of cholera."

Massachusetts State Medical Society.

This Society will hold its one hundred and fourth annual meeting at Huntingdon Hall, in Boston, on Tuesday and Wednesday, June 9 and 10. It is announced that the following papers will be read: "The Pathogenesis of Certain Affections of the Skin," by Dr. George N. Tilden, of Boston; "Consanguineous Marriages, their Effect upon Offspring," by Dr. Charles F. Withington, of Roxbury; "Labor Complicated with Fibroids," by Dr. James R. Chadwick, of Boston: "The Climatic Treatment of Phthisis," by Dr. Harold Williams, of Boston; "How a Lesion of the Brain Results in that Disturbance of Consciousness Known as Aphasia," by Dr. Morton H. Prince, of Boston; "The Relation of Insanity to Certain Nervous Affections," by Dr. Henry R. Stedman, of Roslindale; "Cremation in its Sanitary Aspects," by Dr. John O. Marble, of Worcester; "The Diagnosis and Treatment of Occipito-posterior Positions," by Dr. William L. Richardson, of Boston; and "The Influence of Ovariotomy on Surgery," by Dr. John Homans, of Boston. The Annual Discourse will be given by Dr. Franklin K. Paddock, of Pittsfield. Electrical and other apparatus will be exhibited on Tuesday, at the Institute of Technology.

Effects of Opium.

A sad statement concerning a once respected member of the profession, comes from San Francisco. The account reads:

"The fearful result of the opium habit was shown here this week by the death of Dr. Charles Pierce, late of Baltimore, from the effects of hypodermic injections of morphine. He and his wife had been living in a lodging-house for months, spending most of their money for morphine, to which they were both slaves. Finally, their money was all gone, and they were discovered half dead after four days without food. The doctor lived only one day, but his wife will probably recover. They held high social positions in Baltimore until he succumbed to the habit, and in nursing him his wife also learned to use the fatal drug."

Indiana State Medical Society.

At the annual meeting of this society held recently the following officers were elected for the ensuing year:

President—J. S. Gregg, M. D., of Fort Wayne.
Vice-President—W. J. Hurt, M. D., of Waynetown.
Secretary—E. S. Elder, M. D., of Indianapolis.
Assistant Secretary—W. H. Lopp, M. D., of Columbus.
Treasurer—G. W. H. Kemper, of Muncie.

Medical and Chirurgical Faculty of Maryland.

At the recent meeting of this society the following officers were elected for the coming year:

President—Dr. John R. Quinan.
Vice Presidents—Drs. A. H. Bayly, J. E. Michael.
Secretary—Dr. G. Lane Taneyhill.
Assistant Secretary—Dr. Robert T. Wilson.
Reporting Secretary—Dr. R. H. Thomas.
Treasurer—Dr. W. F. A. Kemp.

Alabama State Medical Association.

At the 37th annual meeting held in Greenville, April 14, 15 and 16, the following officers were elected for the ensuing year:

President—D. F. M. Peterson, of Greensboro.

Vice Presidents—Dr. Star, of Wilcox county, and Dr. Richard M. Fletcher, of Madison county. The Assication will meet at Anniston next year.

Inoculation Against Cholera.

It is interesting to learn by the cablegrams that over 4,700 persons have been inoculated with cholera microbes by Dr. Ferran in the province of Valencia as a preventive of the disease. The new system is said to be entirely successful, and the epidemic is disappearing. Dr. Ferran intends to visit England within a few weeks.

Corrigenda.

On page 630 (May 16), second column, seventh line from bottom, for carbolic acid and camphor each ℥j. read ʒj.

Items.

—In the *Boston M. and S. Jour.*, March 19, Dr. Edward J. Forster reports a case of premature birth following the successful treatment of morphia-poisoning by atropia.

In the *Brit. Med. Jour.* Dr. Guillemard mentions a case of cataract-extraction with iridectomy, in which he had used cocaine with good effect, the patient feeling no pain throughout the operation.

—The Cleveland, Ohio, Board of Education, has issued an English version of the Brussels Manual for teachers, and adopted it for use in the public schools. This manual contains brief instructions as to the first symptoms of transmissible diseases.

—The Physicians of Lynchburg, Va., have organized a medical association with the following officers:

President—Dr. W. H. Dulaney.
Vice-President—Dr. D. A. Langhome.
Secretary—Dr. C. E. Busey.

—In the *Boston M. and S. Jour.*, February 19, Dr. Z. B. Adams thus sums up his objections to the routine use of the antiseptic douche in midwifery: "It is artificial; it is meddlesome, it is of doubtful utility; and it may be hurtful and even fatal."

—Among 7031 births in Prague, there are 3762 legitimate and 3329 illegitimate. It is a noteworthy fact that the death-rate among the illegitimate does not greatly exceed that which prevails among the legitimate.

—Haeckel gives a description of a new substance, called by him "dundakina," obtained from the bark of the *sarcocephalus esculenta*, growing in Senegal. It is a bitter resinoid substance, soluble in water and alcohol, possessing astringent and antipyretic properties, and has been proposed as a succedaneum of quinine.

—Dr. J. McAvoy writes to the *Lancet*, April 18, that a patient of his suffering from diabetes mellitus, in which the thirst was very excessive, he tried every known remedy to alleviate it without effect. He ordered glycerinum acidi carbolici in five-minim doses, and it relieved the patient at once. At present he is in good health, the urine being almost free from sugar.

—To the Midland Medical Society Dr. Suckling showed a case in which subcutaneous nodules around the knee, elbow, and finger-joints were present. The patient, a girl aged nine, had had rheumatic fever, and six months previously there was a well-marked double mitral *bruit;* the nodules seemed to be attached to the periosteum and tendons about the joints, and were painful at times.

—A prize of $1,000 and a gold medal, offered by the Emperor of Germany for the best model of a soldiers' barrack and field hospital, is to be awarded at the forthcoming Antwerp Exhibition, and American inventors are invited to compete. The barrack must be large enough to contain twelve beds. It must be easy of transportation, made with interchangeable parts, and capable of being taken down and reconstructed.

—At a meeting of the Lyons Medical Society (*Lyon Médical*, March 15, 1885), M. Icard related a case of accidental poisoning by the injection of about two and a half drachms each of laudanum and tincture of belladonna. The patient was not seen until several hours after the mixture had been taken. After the unsuccessful employment of emulsives, M. Icard had recourse to hypodermic injections of ether, and the patient finally recovered.

—The application of pure benzole to rodent ulcers is commended, and has been practiced, by Dr. Sherwell, of New York. It does not cause pain, but destroys the sensibility of the parts, giving them a blanched appearance and causing a kind of mummification. After a time a scab is formed, which should be removed and more benzole applied. He suggests also the employment of benzole in cases of cancer of the os uteri, but it may be doubted whether its application to this site would prove efficacious.

Personal.

—Dr. B. F. Baer, President of the Philadelphia Obstetrical Society, and late Demonstrator of Diseases of Women in the University of Pennsylvania, has been elected Professor of Diseases of Women and Children in the Philadelphia Polyclinic and College for Graduates in Medicine.

—Dr. H. Augustus Wilson, having returned from his studies abroad, has been elected Professor of Fractures and Dislocations in the Philadelphia Polyclinic and College for Graduates in Medicine, and Secretary of the Faculty.

QUERIES AND REPLIES.

MESSRS. EDITORS:—

Please answer the following question in the next issue of the REPORTER: How do you estimate the per cent. of a solution? It is argued by some to be the number of grains to the ounce of distilled water, or whatever the menstruum may be. I have always regarded the per cent. of a solution to be the relation between one and one hundred; for instance: Five grs. of hydrochlorate of cocaine to 100 grs. of distilled water makes a five per cent. solution, as I understand it. Am I right or wrong?

Manchester, Ohio. R. A. STEPHENSON, M. D.

Ans.—The per cent. of a solution is as 1 to 100. You are correct in your view. EDS. REPORTER.

THE

MEDICAL AND SURGICAL REPORTER.

No. 1475.] PHILADELPHIA, JUNE 6, 1885. [Vol. LII.—No. 23.

Original Department.

Lecture.

SANITARY IGNORANCE AMONG HIGH AND LOW.

BY ALBERT L. GIHON, A. M., M. D.,

Medical Director United States Navy, President of the American Academy of Medicine, Ex-President of the American Public Health Association, etc.

(*Continued from page* 678.)

I said some time ago, perhaps you already think a very long time ago, that the neglect of this body which is entrusted to our care, was chiefly shown in our neglect to properly nurture it, and I have been insisting that a most important part of its nourishment is the oxygen which the atmosphere supplies; but air alone would be meager diet for even the most spiritual of earthly shapes. That may be prime minister, but the butcher, the baker, the grocer and the milkman, are very important members of the kitchen cabinet; and upon the plentiful supplies they severally provide will our physical welfare greatly depend. It was a grievous sanitary mistake which announced as a precept that one should leave the table with hunger unappeased. Apart from the actual torture of such a thrice daily practice of self-denial, it is to be denounced on sound hygienic grounds. The human laboratory prepares some twenty-five or more pounds of products of secreting organs every day, a very large proportion of which is gastric juice. Reflect what an amount of solvent is here waiting for material to be dissolved. No wonder the stomach is a ravenous cormorant, only to be quieted by being fed. There is really little danger that more than is required to supply the actual waste, which amounts, in solid, liquid and gaseous matters, to at least six pounds a day, will be assimilated. The rest will be rejected. Huxley's tables fix the normal weight of a full-grown man at 154 pounds, of which 68 pounds are flesh, 24 pounds bone, 28 pounds fat, 10 pounds skin, 3 pounds brain, 3 pounds heart and lungs, 11 pounds abdominal organs, and 7 pounds blood, to maintain which he requires a minimum per diem supply of 5,000 grains of beef, 6,000 of bread, 7,000 of milk, 3,000 of potatoes, 600 of butter, and 22,900 of water—a total of about six pounds, corresponding to his daily waste. It is futile, however, to attempt to measure in precise numbers the quantities of carbon, oxygen, hydrogen and nitrogen—of albuminous, saccharine and oleaginous food each man, woman and child absolutely requires. Idiosyncrasy, temperament, age, bodily condition, emotional influences, employment, climate, weather, raise and lower the scale in rapid, incessant fluctuation beyond the possibility of human calculation. It is better to err on the side of surfeit than that of deprivation. How many children are sent to bed gnawed by hunger, because their over-wise parents have denied them the piece of bread or the bowl of milk they craved, and should have had. The house-dog and kitchen-cat sleep contentedly with well-filled stomachs, while the poor starveling tosses in its perhaps luxurious couch, crying, if not cowed by punishment, in obedience to nature's imperious demands. I do not doubt that many a dutiful child often practices unnoticed a heroic resignation that is Spartan in its

severity, when it quietly acquiesces in its mother's declaration that it has had enough, or its finical father portions out just what he thinks it ought to eat. It was once the barbarous custom to deny the drop of water to the parched lips and cracked tongue of the fever patient. Even to-day, the child who has romped till fluid streams from every pore, and its blood is all athirst, is told it must not drink lest it be made sick. Beside the unwise precaution that is harmful, sur-indulgence becomes venial if the food be good, the water clean, and the air pure. The beasts of the field browse at will, and the flowers drink in the dew which falls upon them without stint, but the human creature uses his reason to run counter to his natural animal instincts. The rich, effeminated by luxury, with stomachs as feeble as their limbs, seek to invigorate them by drugs, when good blood is the tonic they require. The poor spend their scanty incomes for dress and sham display, and stint themselves in food. There is no sadder sight than the gaunt, wan faces of the underfed women and children one encounters daily in the streets of a great city. To a physician, especially, their meager, starved bodies are mute appeals to his sympathy. They come to him for relief for aches and ailments that are only symptoms of inanition. Medicines cannot give them the bright red blood, the fat and muscle that are needed to round their limbs, fill up the hollows of their faces, and smooth out their wrinkled skins. Food is the one prescription that will make them well again. Bread and butter and meat are workers of wonders that iron, quinine and even opium, never can perform. There are crumbs enough swept from Christian tables to feed the multitude, and it were well if the Moslem's reproof, when he picked up the discarded crust—"Friend, that would have made a poor man's meal"—were oftener heeded. A pittance of unwholesome viands, bought because cheap, serves to dull the appetite, and the jaded bodies, which must work, are stimulated by insipid teas. Even the fragile flowers of fashion, who fancy that their morning inappetence is the evidence of finer organization than the peasant's ravenous greed for sustenance, might learn from the latter that the robust health which needs no tinting comes from a sound digestion. The man or woman silly enough to boast that they can not eat an early meal, and affect to breakfast at one o'clock, should know that they are already sick, and are in so far inferior to other men and women.

Across the border in Montreal and Quebec there is a race of women healthful, vivacious, vigorous, whose cheeks wear such a pronounced red that would here subject them to suspicion. Their superabundant health and spirits, their firm round limbs, which never lag nor stagger, their full chests, which never gasp for breath, are due first to their active out-door lives, and secondly to the keen zest for food which the pure air they breathe gives them. The injunction to eat, drink and be merry, no more palliates gluttony and intemperance, than are these sins against common sense arguments for affected squeamishness or total abstinence. The infant in arms finds its limit in the running over of the measure of its solitary article of diet; the most voracious child seldom gorges but once with too much sweets; and the healthy appetite unerringly indicates to the reasoning individual when he has well dined. Our higher civilization has no reason to be proud of the development of the modern American hotel-table and its daily parade of a multitude of little plates of soup, fish, flesh, fowl, canned vegetables, puddings, pies, ice-cream, nuts, fruit, and what not else—nor in the elaborate menu of a fashionable dinner with a dozen or more courses and eight or nine wines, intended to show how much money the host is able to throw away. The piled-up trays of what even the most omnivorous has to refuse carried away by the hotel waiters, not only suggest the pot-pourri, which has been extemporized in the stomach, but have a sanitary bearing apart from their relation to the question of the economics of food. The swill-pail of an ordinary household and the huge garbage-tubs of large establishments are not only reproachful evidences of waste, but add to the difficulties and expense of civic sanitation. The densely-populated communities of the eastern hemisphere not only utilize everything that is edible, but pay back the excremental refuse to the soil, that it may aid to germinate new food to make men live. We hide it from sight only that it may germinate the filth diseases that make men die.

But we may have only pure air to breathe and good food to eat, and still one other thing is needed to insure that sound health which leads to success in any pursuit, to the enjoyment of happiness, the capacity for pleasure, the attainment of long life, and its consummation in contented old age. This human mechanism must not be idle. When Simon Cameron was asked to what he attributed his remarkable vigor, he

said: "The secret of life is to keep moving. Men grow old only when they sit down long enough to get rusty." Salutary exercise does not consist in mere forced distasteful muscular activity, as where a daily task of walking over so many miles of street or swinging an Indian club so many times around one's head every morning, is self-inflicted and submitted to with grim fortitude. The mental discomfiture is quite sufficient to antagonize any other gain. It is the rational temperate activity of every organ which is beneficial, giving them all—limbs, brain and senses—that healthful play which is necessary for their proper nutrition and development, and which enables them to perform their functions in the best possible manner. To walk till the legs ache becomes fatigue, which is exhaustion. To pull in a race-boat may give one brawny arms, but swollen muscles do not make the man. Sur-excitation of any part is as harmful as its prolonged inactivity. My own experience of the athletæ of the Naval Academy is that they succumbed sooner than others, especially on ceasing their gymnastic routine. The violent exercise of the ball-room is extremely pernicious, being performed in a vitiated atmosphere, when an essential of all vigorous muscular activity is that it should be undertaken in the open air, the effect of dancing being to increase the ordinary vitiation of the air at least one-third. It needs no sanitary critic's eye to read in the faces of the jaded women in an ordinary ball-room after midnight, the inevitable signs of the unnatural excitement of physical intemperance, akin to the delirium of drink. The flushed faces or the pallor of those with weakened hearts, are as tell-tale of wrong-doing as the red eyes and bloated visage of the toper. If the one degrades and disfigures manhood, the other as effectually mars the woman. The panting, perspiring, bedraggled objects, which one sees in the small hours of the morning, with pupils dilated and dark rims around their eyes, showing their exhaustion, forced to effort by beef-tea or punch, or that latent evolution of the scent-bottle into a huge porte-génièvre—these are not visions of loveliness, nor are their rumpled companions of the other sex models of manhood. Unfortunately we do not see ourselves as others see us, and consequently what I say will probably not deter a single pretty woman who listens to me from dimming the brightness of her own eyes and the ruddy tints of her own complexion in the same vile atmosphere. We may picture the skeleton figure of death hovering unseen over the fair and fragile dancer, but the waltz will still go on to the monotonous grinding of the music and the vibrating cadence of the very floors and walls.

But what better are you, fathers and mothers? Do you pay any greater heed to the admonitions of your sanitary teachers than these giddy girls and boys, who fancy they are enjoying pleasure in wearing out their capacity for pleasure? Do you ever give an earnest thought to the prevention of disease? Do you not wait until some sharp twinge of pain, some qualm of nausea, scares you, or the changed aspect of the loved face alarms you, and then, with abounding faith, do you not rush to your pellets and dilutions, if you be good homœopaths, or to your family physician, or possibly, if you dread his fee, to the corner apothecary, who will give you his advice gratis, though he charge you twenty-five cents an ounce for aqua pura? How many men and women are there in this community, boasting as large a proportion of educated, cultured and eminent members as any other in the world—how many of these intelligent citizens look upon the physician as the pilot to guide them over treacherous shoals? Are they not already stranded and wrecked when they appeal to him for aid? Is medicine to them the science which unfolds the mysteries of human existence and the laws which govern it, or only an art by which their broken bones and battered and worn-out organs may be tinkered into soundness, and "their sweet bells jangled out of tune," made to play again in harmony. Undoubtedly a sense of gratitude sometimes invests the medical man, whose offices have snatched a loved life from death, with exaggerated attributes; but more often he is only summoned in the same spirit as some other tradesman, whose services are required to mend a leaking pipe or broken drain. Ignorance of the sanitary relations and functions of the practitioner of medicine, as the most important and responsible offices of his profession, can be charged against nine-tenths of every community. In the estimation of both high and low, he is only a medicine-man; and though it is a simple matter of arithmetic to prove that the ounce of prevention costs less than the pound of cure, yet to-day, as it was yesterday, and will be to-morrow, health boards and health officials vainly appeal for the dollars, be they few or many, required to equip them with the necessary means for stamping out the first spark of disease. When the fire blazes, which ought never

to have been lighted, they are lavish enough with the means of which till then they were so niggard; and are loud in their praise of the clattering engines and noisy patrol. Even the conflagration commands their admiration. I had occasion, as President of the American Public Health Association at St. Louis, last October, to present some statistics in illustration of the arithmetic of sanitary foresight, but my time nor your patience will not permit me to repeat them. It is worth your while, however, to look in your city ledgers upon these accounts, where on the one side is entered in paltry hundreds the money appropriated for health protection, and on the other a colossal balance of loss written in millions. Suffice it to say that the small-pox epidemic of Philadelphia of 1870–72, cost that city nearly twenty-five million dollars, which might have been saved, says Dr. Benjamin Lee, by "an additional expenditure by the city authorities of about twenty thousand dollars for purposes of prevention, made sufficiently in advance and with such publicity as to make the public fully aware of the impending danger." Small-pox invaded seventy-seven of the one hundred and two counties of the State of Illinois during its epidemic prevalence (1880–82), causing nearly three thousand deaths, and involving a cost of nearly four and a half million dollars, exclusive of the value of lives lost and disabled. "Within twenty days," says Dr. Rauch, "after the various agencies set in operation by the board had fairly begun to act, there was a decline of nearly fifty per cent. in the number of cases, implying a saving of two and three-quarter million dollars." Sir James Paget estimates the loss in England and Wales every year in consequence of sickness at twenty million weeks' work, that is as much work as twenty million healthy people would have done in one week; which is one-fortieth of the entire work done in a year by the whole population between fifteen and sixty-five years old.

(*To be continued.*)

Communications.

THE EPIDEMIC OF TYPHOID FEVER AT PLYMOUTH, PA.

BY JOSHUA L. MINER, A. M., M. D.,
Of Wilkes-Barre, Pa.

The borough of Plymouth is situated on the North Branch of the Susquehanna River, in Luzerne county, Pa., about three miles below the city of Wilkes-Barre. The population is made up chiefly of foreigners of various nationalities, engaged in mining coal, and numbers about nine thousand. Many of the private houses and stores, the churches and public buildings in general, are substantial brick structures of varied architectural design, denoting a degree of intelligence, enterprise, and prosperity, not hitherto suggested by reports of the borough since the epidemic commenced.

The town is, for the most part, regularly laid out, the general direction of Main street being parallel to the general direction of the river. The other streets are nearly all of them either parallel with or at right angles to Main street.

Back of Plymouth, rising several hundred feet, is a range of mountains, which form the western boundary of the Wyoming valley. The base of this range runs through the borough, and is nowhere more than three hundred feet from Main street; so that a very large portion of Plymouth lies on the slope of these mountains. The borough line, however, does not extend more than one-third of the distance to the top.

Through the borough flow three streams of water—one through the southern portion, the second through the central, and the third near the northern boundary. Originally these streams were supplied with pure mountain water, but subsequently mine water from various collieries was pumped into them, thus not only very materially increasing the supply, but also rendering it quite constant even in very dry periods. The chief constituents of mine water are carbonate and sulphate of lime; the latter mostly. In some cases, as much as seventy grains of calcium sulphate have been found in one gallon of mine water, and as much as thirty grains of the carbonate. In some mines of the anthracite region, free acids are found in large quantities. From one to two hundred grains have been found in one gallon of the water of some collieries. The yellow deposit is an oxide of iron, which is found in large proportions. The free acid mentioned above is sulphuric acid. Along these streams, the grass and other vegetation in contact with the water are entirely destroyed. Fishes and frogs are never found in them—thus showing how destructive they are to organic life, and consequently they may be considered more or less disinfectants.

There is no general system of sewerage in operation in the borough, although the facilities are unusually good.

Almost every lot is provided with a privy-vault,

and in many instances all sewage and waste-water passes by underground drains into them. In most cases, however, these vaults are not connected with the houses by drains, and are used entirely for the reception of excreta. There are many drains for conducting away waste-water, which open just outside the kitchen door, and extend either to vaults, to the gutters along the streets, or to remote portions of the lots. Among some of the poorer and more careless people, slops of all kinds are thrown anywhere on the ground around their houses, or emptied out on the street.

Ashes and garbage in general are variously disposed of. A few people make regular provision for their removal. Many have an ash-heap in a corner of their yards. Others carry their ashes and garbage out to the street.

It will be seen from the situation of the borough on a hillside and the course of the three streams of water through it, that whenever there is a heavy fall of rain for a few hours the borough is tolerably well washed. The general health of this borough has been equal to that of any other place in the county up to the tenth of last April; so that the present epidemic can in no way be attributed to the sanitary condition of the borough. Since the first of May the sanitary conditions have been greatly improved. Ashes and garbage have been removed, privy-vaults emptied and thoroughly disinfected, and a scientific system of general disinfection established.

The cause of the present epidemic was shrouded in mystery for a long time. Dr. R. Davis, of Wilkes-Barre, first suggested that it might be found in the water-supply. The public quickly took up the suggestion, and their clamor became so loud that the water company invited a committee of physicians from the city of Wilkes-Barre to thoroughly investigate their water courses and reservoirs, to examine the water supplied, and ferret out, if possible, the cause of the great scourge. The committee consisted of Drs. Murphy, Taylor, and myself. Every facility was offered to make the investigation thorough and impartial.

The borough receives its water-supply from three sources—individual wells, the river, and from the Plymouth Water Company. The wells and river, till a few years ago, alone supplied the water.

The Plymouth Water Company derives its supply from a beautiful stream, having its source in various springs on the mountains back of Plymouth. In the glen through which the stream tumbles, four dams have been constructed at various distances, making reservoirs of various capacities—the whole distance from the first reservoir to the fourth being about one and a half miles. Between the first reservoir and the second an artesian well has been driven to the depth of a thousand feet, with a capacity of one hundred and fifty gallons per minute. As the result of all this labor, the water supplied is abundant during a greater portion of the year—clear, cool, and perfectly pure. Besides supplying most of the water used for domestic purposes, several large collieries are supplied by the water company. This latter supply, when the mines are in full operation, amounts to about two or three hundred thousand gallons daily. When there is a drought of any length, the supply of water from the mountain stream is not sufficient to meet all these demands. To overcome this difficulty, the water company has supplied river water on several occasions.

The water is delivered from the first reservoir by a single pipe, which is continuous for several hundred feet. It then divides into two mains; one runs through the part of the borough on the hill, and sends branches through most of the streets; the other main continues down Coal street to Main street. On this main, near its junction with the first main, is a shut-off or stop-cock. This main supplies Main street, the collieries, and that portion of Plymouth lying between Main street and the river. It also connects through many streets opening into Main street with the branch-pipes from the main first mentioned. Wherever these connections exist, there are shut-offs or stop-cocks.

Whenever mountain water is low the stop-cocks are all turned, so that this water may not be distributed to the collieries, and necessarily Main street is shut off too, and instead these latter are supplied with river water. It will therefore so happen that a party living on Main street will be using river water, while a next-door neighbor around the corner towards the mountain is using the mountain water.

River water has been used as above by the Water Company for a period in almost every year since its organization. In 1881, the company pumped river water from August 30 to November 5, from November 21 to December 23. In 1882, from October 27 to January 1. In 1883, from September 30 to February 1, 1884. In 1884, from July 30 to November 24. In 1885, from March 20 to March 26. This last pumping has been held by many as the cause of the present epidemic.

The objection to river water is that it contains a large amount of sewage from Wilkes-Barre. There are in Wilkes-Barre about six hundred houses whose sewage passes into the river. Of this number, very nearly half have passed their sewage in for the last ten years. Of the balance, a very few, if any at all, made connections with the sewage system of Wilkes-Barre between November 24, 1884, and March 20, 1885, so that the bulk of sewage passing from Wilkes-Barre into the river was not materially increased between those dates.

This epidemic could not have been caused by the use of well water, for in families using well water there is uniform immunity from it. On Temperance Hill, a portion of Plymouth, eleven families were found using well water, and not a single case of fever had occurred. On Lee street, all the families on the upper side use hydrant water, those on the lower side use well water. The latter are entirely free from the fever, while the former are almost all affected. On Davenport, Ackley, and Franklin streets, was found the same relative state of affairs. On Welsh Hill, another portion of Plymouth, hydrant water is not found at all, the water being entirely derived from wells. Here were found four patients sick with the fever. These four, however, were working out in town, and were taken sick there, and subsequently removed to their homes in this locality. Wherever, on the other hand, hydrant water is used, there the fever is found to prevail. This leads to the conclusion that in the hydrant water lies the cause. Was it the river water supplied between March 20 and 26, 1885?

If the period of incubation was a fixed one, that would be a strong factor in influencing the answer; but being a period varying from ten to twenty days, it helps little or nothing. Still, as Dr. Davis argued in a recent discussion of this epidemic before the Luzerne County Medical Society, in seven or eight hundred cases, some few at least ought to have developed as early as the tenth day from the reception of the poison. As a matter of fact, none occurred before the 9th of April, which would be more than ten days from either March 20th or 26th.

The following cases, most of which were collected by Dr. S. H. Taylor, will throw some light on the question. A family living about six hundred feet below the first reservoir, get their supply of water from the creek formed by the overflow of this reservoir, and at no time did they use river or hydrant water. In this family are two cases of the fever.

A lady coming from the West to Plymouth on March 29, was taken down with the fever about April 12. She drank no river water whatever.

A young man visited Plymouth from Dallas, on April 1, and drank freely of the hydrant water. About April 15 he was smitten with typhoid fever, and has been very ill.

A young lady from New Jersey attended a wedding in Plymouth on March 25. She made Wilkes-Barre her headquarters. On this day she went to Plymouth about 10 a. m., and returned about 3 p. m. During this time, it is positively asserted, she drank no hydrant water whatever. Subsequently, about the 28th or 29th of March, she went to Plymouth to visit there several days. Later she returned home to New Jersey, and about the 14th of April was taken down with a typical case of typhoid fever.

Many families removed to Plymouth from various places after April 1, and many of these are among the afflicted.

Other cases might be cited, but the above are sufficient to argue strongly against the river water in any way being the cause.

In the third place, a portion of Plymouth known as Broadway, and another near by as Ridge Row, comprising some sixty houses belonging to the Del. & Hud. Coal Co., were supplied all winter with river water, the supply being furnished by a system of water works owned and operated by the Del. & Hud. Co. On the 3d of April, when the ice broke up and moved out of the river, the pipe through which the water is drawn was disabled, and the pumping had to be stopped. Till then, these families, representing some three hundred individuals, freely used river water, and yet not a *single case* of fever has occurred among them.

Fourthly.—Nanticoke, a town three miles below Plymouth, is constantly supplied with river water. Yet typhoid fever is not epidemic there in the slightest degree.

Fifthly.—It is possible, although not certain, that between the 20th and 26th of March river water was pumped through *all* the water company's pipes. The superintendent states that while water is being pumped from the river, if the collieries drawing water from the water company are not working, it is possible to force water even up into the first reservoir. He says this did happen for two days between the dates mentioned.

The people who live in the highest part of Plymouth, and who are supplied with water through the main first described, state that they received no reliable supply of water from their hydrants

till after April first; that during most of the winter they could not get water from their hydrants, but got their water from their neighbors' wells. It is very doubtful if river water was used by them at all. Yet typhoid fever prevails among them with all the virulence that characterizes it elsewhere.

Thus it appears that the river water could not be reasonably considered THE CAUSE.

Whence is the cause? The committee previously mentioned found a house on the right bank of the mountain stream, some distance below the fourth reservoir, in which was a patient only then (May 6) convalescent from typhoid fever. This house is situated about forty feet from the stream on a bank sloping at an angle of forty-five degrees, and about fifteen feet high. This patient had been sick since January 2. His physicians more than once considered his case hopeless. His protracted illness was caused by a relapse that occurred March 12. On the 17th and 18th of March he had severe hemorrhages from the bowels. His attendants state that during the night of the 18th of March he passed, of "pure blood" alone, two chambersful. The nurses stated to Dr. Taylor and myself (there can be no doubt about this) that because of the cold weather, the snow, the darkness, and the distance to the privy, they were in the habit at night of taking the vessels containing the dejecta of this patient out the back door, which opens towards the creek, and going down and away from the house, towards the creek, and there emptying the vessels. They did so during the nights of March 17 and 18.

What is the result? These excreta were accumulating here night after night for many weeks. The ground was frozen hard for eighteen inches or two feet beneath. When the thaw occurred under the influence of the sun's rays, and the light rains that prevailed here during the last week of March, then all this accumulated poison was precipitated in two or three days, without the possibility of its being filtered by passing through the soil, into the stream below; and it is no act of the imagination to say that in one or two hours after the impregnation of the stream at this point, the poison was being delivered throughout Plymouth.

On account of the intense cold weather that prevailed during February and March, the mountain stream and its sources of supply were nearly frozen up. This condition, together with the reckless waste of water by opening hydrants at night to keep them from freezing, led to the scarcity of water that occurred during the middle of March, and also led to the necessity of pumping river water certainly for some, and possibly for all of Plymouth at this season of the year.

During the 26th of March, while the Superintendent was examining the water supply in the reservoirs, he discovered that the delivery-pipe in the bottom of the third dam was frozen, so that no water was being delivered to the reservoir below, and that the second reservoir was nearly full of water. He immediately built a fire around this pipe and thawed it out. The water immediately flowed into the first reservoir, two or three hundred feet distant, and was thence distributed to the borough. From this time on there was an abundant supply of mountain water, and the pumping of river water ceased.

Upon consulting the government daily weather record, kept by the Rev. Dr. Hodge, of Wilkes-Barre, it appears that the maximum, minimum and mean temperatures for the 20th of March and succeeding days was as follows:

Date.	*Max.*	*Min.*	*Mean.*	*Date.*	*Max.*	*Min.*	*Mean.*
20	20°	2°	9.7°	29	37.1°	22.5°	28.7°
21	20.1°	—1°	11.2°	30	44.5°	18°	34.7°
22	20.1°	1.4°	12.9°	31	57.2°	27°	48.1°
23	23.2°	10°	16.4°	Apr. 1	58.2°	29°	44.4°
24	35.6°	4°	27.5°	2	53.4°	32°	40.8°
25	34.8°	24°	27°	3	70°	36°	50.4°
26	46.5°	18.5°	38°	4	40.8°	28.5°	32.7°
27	57°	31°	42.9°	5	52.2°	22°	42.1°
28	43°	29°	33.3°				

This record also shows that considerable rain and snow fell during this period, amounting in all to nearly 2″ of water. It is also to be stated that that portion of the land around the house above mentioned, where the excreta were thrown, has a southern exposure and inclination, thus being placed under the most favorable conditions for an early thaw. Making all due allowance for any difference of temperature caused by difference of altitude, only once after the 26th of March could the maximum temperature have fallen near to or below the freezing point. Moreover, from Dr. Hodge's record it will be seen that on that day, the 29th of March, 4½″ of snow fell, which melted made .28″ of water.

Allowing three or four days to pass from the time of thawing of the pipe mentioned above, during which this poison was passing into the stream, and then counting ten days, the period in April is reached when the first cases of the epidemic appeared, and counting fourteen or fifteen days, that period is reached when new cases by the hundred were daily announced.

Recognizing the filthy condition of the river, and the undesirableness of drinking such water, yet it must not be forgotten that the mountain stream for a given period was assuredly filthy, and

that too with the excreta of a typhoid fever patient. Again, if the cold would have a *deleterious* effect upon the excreta of this man, it would also be equally operative in the Susquehanna river as in this mountain stream.

The conclusion that the cause of this epidemic is to be traced to this case upon the mountain stream is irresistible.

The character of the epidemic was early diagnosed typhoid fever by some of the Plymouth physicians. The diagnosis was confirmed by Wilkes-Barre physicians called in consultation or in attending their own cases. This diagnosis was also asserted by the investigating committee mentioned before. It was indisputably confirmed by the post-mortems made by Drs. French and Shakespeare, of Philadelphia.

More than a thousand have been smitten with the disease, nearly a hundred have died, and more than two hundred families have been rendered destitute.

The lessons from this epidemic are numerous, and should not be lost. They have been presented at a fearful cost, and should be widely spread.

First.—No matter how clear, or cool, or pure, a stream of water may appear, it may contain an indetectible, but death-dealing germ. It is well known that a single bacillus, under favorable circumstances, will, in twenty-four hours, breed millions. This argues the great care that should be exercised by water companies to guard their streams against every possible source of infection. They should control the streams and their tributaries, together with the adjacent land sloping towards them.

The innocent but careless act of professional attendants may be the cause of most direful results.

The physician should inform himself in regard to the minutest detail of the care of his patient, both inside the house and outside, leaving nothing to the common sense of attendants.

Disinfection and all antiseptic measures should be promptly and vigorously used in all cases of contagious or infectious diseases, no matter how isolated they apparently may be.

The knowledge of disinfectants and antiseptics, together with their use, should be widely disseminated in a useful form, not only among the profession, but also the laity.

—M. Coestu, of Paris, reports two hundred and ninety-eight cases of diphtheria treated by large doses of calomel, and only twelve deaths.

THE CAUSES OF PHTHISIS.

BY PROF. GERMAIN SÉE,

Of Paris, France.

[Translated by E. P. Hurd, M. D., Newburyport, Mass.]

(*Concluded from page* 681.)

WARM AND COLD ATMOSPHERES.

I. *Warm Countries.*—In warm countries phthisis is especially prevalent. In the time of Celsus and of Pliny it was unknown in Egypt; to-day it rages with great severity in Lower Egypt, not only among strangers, but also among the natives. At Cairo, till quite recently renowned for the advantages of its climate, it produces a mortality of fourteen per cent. In Hayti, it ravages the cities and spares the plateaus. Countries situated in the equatorial zone, says Pochard, offer the most favorable conditions for this disease, and sojourn in these places ought to be interdicted to phthisical patients.

II. *Cold Countries.*—In cold countries, such as Norway and Sweden, phthisis is rare in the northern and mountainous parts; but at Christiania, at Stockholm, and in the maritime portion, which is bathed by the Baltic and North Seas, as well as in the Russian seaport cities, situated on the shores of the Baltic, the disease is frequent. In Denmark, at least in Copenhagen, phthisis is accountable for thirteen per cent. of the mortality. It is always, and everywhere, the city which pays the largest tribute to the disease.

III. *Temperate Regions.*—The same holds in temperate climates. At Berlin, in Saxony, in the southern part of Germany, the disease is very frequent, at least in the cities. We know the mortality of Vienna, it is exactly the same as in Paris.

IV. *Glacial Countries.*—It is only in glacial countries, like Iceland, that phthisis has not thus far been observed. If this island has an immunity from the disease, it is because it has little communication with the civilized world outside.

V. *Importation of the Disease.*—The same observation applies to the coasts of South Africa. When the negroes have been transported from their native country, where phthisis is relatively unknown, to countries where this disease is prevalent, they have contracted it with extraordinary readiness, and have rapidly succumbed to its ravages.*

* We should not overlook the fact, especially pertinent in this connection, that there are other important factors besides the bacillus that have to do with the propagation and diffusion of phthisis. There are multitudes of individuals who have immunity from the disease however intimate

Hence, whatever may be the latitude of different countries, it is always in the centres of population that the disease rages with the most intensity; the countries or localities which have immunity from the disease have but few relations with the dense populations outside and the commercial world generally; when these relations are established and become extensive, the disease arrives and propagates itself.

VI. *Seasons.* Change of seasons exerts no influence except so far as it favors the development of the complications of the disease. The summer is as bad for the phthisical as the winter, but statistics show that the maximum of mortality, is in the spring by reason of the broncho-pulmonary maladies which are so frequent at this season of the year. At Paris, where 100 individuals die every day, the mortality is the greatest in March, April, and May. It is the least in August, July, and September. The prevailing inflammatory disorders are the cause of this difference.

§ 37. ATMOSPHERE OF ALTITUDES.

There is no doubt as to the relative protection and immunity afforded by altitudes. In this connection reference is generally made to the high plateaus of Mexico, which are almost if not completely exempt from tuberculosis. The endeavor has been made to explain this exemption by the rarification of the air and by the endemic and anoxæmic chloro-anæmia which is believed to be antagonistic to tuberculosis; the fact itself has, however, been controverted, and Jourdanet computes the mortality of Mexico from phthisis at 5 or 6 per cent.

Jaccoud, with rare perspicacity, has defended the doctrine of the immunity of altitudes, especially of the Rhetian Alps, the elevated valleys of the Engandine, and particularly Davos, which is 1755 metres above the level of the sea. St. Moritz and Pontrisina, more elevated still, are a a real refuge against the disease, and a hope for patients who are already victims. In calling attention to the benefits of these cold and elevated stations, Jaccoud has rendered a real service to science, and if for no other reason than that it has done much to put a check to those incessant migrations to warm or temperate regions which are often themselves more infected than the native country of the patients. But we should not exaggerate the therapeutic and hygienic value of these altitudes. "One never sees tuberculosis," says my eminent colleague, "in the natives who do not quit the country. On the other hand, you

may be their relations with tuberculous persons, and in whatever region of the earth they make their habitation. They seem to owe this immunity to a certain strength and firmness of constitution which enables them to resist debilitating influences, not the least formidable of which is the tubercle microphyte.

Populations like the negroes of the African coast, to whom allusion is made in the text, when removed from conditions of climate, alimentation, exercise, etc., to which, for generations, they had been accustomed, and to which they have been organically adjusted, and forced to accommodate themselves to quite different conditions, among which may be particularized, bondage to hard task-masters, exhausting labor, insufficient food, severe climate, have readily fallen victims to phthisis. The same may be said of a certain class of foreign emigrants to the New England coast, particularly Irish, who, bringing to this country constitutions enfeebled by hardship and privation, yield to the rigors of our climate and swell the mortality from phthisis, as the city registers show. It is no uncommon experience for physicians to record two, and even three, deaths from consumption in the same family, and in the same season, nor is it unusual for parents coming originally from Ireland, and free from all hereditary tendencies to consumption, to witness their sons and daughters succumb, one after another, to the same disease. The explanation of this fatality, and that of the negroes above alluded to, does not seem to me to be so much in the fact that the immigrant finds the bacillus of contagion in his new habitat, as that his constitution by some inherent or acquired enfeeblement is unable to cope with the difficulties of its new environment, and lacks the faculty of effective resistance, under the altered conditions, to morbid influences generally, and the tubercle-bacillus in particular. The emigrant does not need to come to this country to meet with the microbes of disease, for they exist in his own country; if he elects to make his home here, he must be prepared to encounter and adapt himself to the severities of our climate under penalty of falling a prey to the microbe of phthisis, if by non-adaptation, that stage of physiological depravation is reached which constitutes the proper soil for the bacillus to occupy, and in which it may flourish.

The doctrine that phthisis is a communicable disease ought to find support in the medical history of those places which are resorted to by invalids suffering from the disease. For whither these flock year by year numbers of tubercular individuals, mingling in social intercourse with and inhabiting the houses of the residents, many of whom have themselves chosen the place for their home on account of pulmonary affection.

Not very long ago, according to the *London Lancet* (September 27, 1884), Mr. Thomson, of Melbourne, collected facts to show that tubercular phthisis had been in this way imported into Australia, and he found formulated thereon a germ theory of phthisis. According to Paul Langerhaus in his work on "Madeira," the inference of Mr. Thomson does not apply to this island in which phthisis has not been disseminated in consequence of the annual influx of consumptives. His conclusion seems to be the result of a very careful statistical inquiry. In fine, Dr. Langerhaus holds that the facts pertaining to the medical history of Madeira are wholly opposed to the notion that phthisis is an infectious disease, and rather assign to it a place with such affections as cancer or hæmophilia. His observations go to show "that almost the only individuals to fall ill of phthisis in the colony have been those in whom heredity could be traced, and point to the very great importance of inheritance in the etiology of phthisis."—TRANSLATOR.

will observe it in those who have emigrated to Italy; the reason is plain—the first have not had communication with the phthisical, the emigrants find the disease in Italy."

The best proof that altitude has at best but a doubtful influence, is that if the inhabitants of elevated countries find themselves huddled together in confined spaces, as in work-shops, such as you will see at Joux, at Chaux-de-Tonds, built on the Swiss Jura at 1100 metres of elevation, you will find as many phthisical persons as at Berlin. The town of Joux is peopled with watch manufacturers, who work in close rooms or workshops, where they are constantly in contact with diseased persons.

Microbic Immunity of Altitudes. If the immunity of altitudes is (with the exceptions above indicated) conceded, it may be said to be absolute on the uninhabitable mountain heights. Thus a notable diminution in the microbes of the atmosphere has been remarked at an elevation of 500 metres; this has been recently shown by Miquel. At Grundelwald, a height of 800 metres, the microbes are in minimum proportion. Above 2000 metres they no longer exist, except in an inappreciable quantity. At the Eiger, which M. de Freudenreich was the first to ascend in order to analyze the air at 4000 metres above the sea, the atmosphere is absolutely pure; no more microbes. Alas! this asylum of refuge is very high, very far distant!

§ 38. MARINE ATMOSPHERES.

I. *Sea Voyages.* For a long time a curative influence was attributed to sea voyages; the English journeyed round the world for deliverance from their natal malady. Facts have shown that this practice is ill-founded, and Rochard's statistics show that phthisis is proportionately more common among seamen than among landsmen, and that, moreover, it oftener takes the acute type on shipboard than on land; the ship is worse than any military barracks; the influence of sea sir, which might be favorable, is counterbalanced by the vitiated air of the cabin and forecastle.

II. *Marine Atmospheres.* The air of the sea is in fact perfectly pure in so far as it is not altered by land-winds. Miquel has proved this in some recent researches, made with the greatest care, the conclusions of which are as follows:

1. At a great distance from the coast, or on the shore when the wind comes from the sea, the sea air is exceedingly free from microphytes.

2. In ordinary times the sea does not give up to the air the bacteria which it contains in its waves.

3. The sea rapidly purifies the infected atmospheres coming to it from the mainland.

4. For this reason it is an absolute obstacle to the propagation of contagious diseases.

5. The great purity of the air of the sea does not guarantee purity of the confined air of the ships. While at Paris, dust collected from the air contains 14,000 spores per cubic metre, the air taken at sea contains only 500, and three-tenths of these must be laid to the charge of the ship itself. If, then, a vessel arriving from infected localities carries the germs of an epidemic prevailing on the land, it is by the persons, the merchandise, the inert objects which it conveys, and I add by the spores which it brings from landing places.

Captain Moreau, who superintended with very great care the procuration and examination of air in mid-ocean, brought in his mail packet, the Gironde, after a twenty-days voyage across the Atlantic, an atmosphere charged with the spores of fungi and starch granules which could only have come from the islands Lancerate and Tuerta-Vintura, which were the points of embarkation.

The two-fold question of the noxiousness of the air of vessels and the immunity of sea-air has thus been decided by clinical experience and biological experimentation.

§ 39. MICROPHYTES OF THE ATMOSPHERE.

For a long time malarial countries have been regarded as exempt from every other kind of pathogenic influence. The antagonism between paludal fevers and typhoid fever and phthisis has been in a formal and earnest manner maintained by Boudin; let us examine the facts. Are malarial countries really exempt from phthisis? Langalli has seen in a region charged with miasmatic effluvia one hundred and forty-four cases of paludal cachexia, of which twenty-five were complicated with tubercles.

Burot, of Rochefort, and Maurel, of Guyane, have reported that in their respective countries, which are pre-eminently marshy, phthisis makes enormous ravages. There would seem, then, to be rather parallelism than opposition. All the theories, then, respecting the reciprocal antagonism of the divers morbigenous microphytes remain still to be verified.

—A proposal was made last year by the Cuban *Crónica Médico-Quirurgica*, that a medical college should be formed for the purpose of advancing professional interests, material and moral, in the island. A meeting was held in the rooms of the Royal Economical Society, and a committee formed to carry out the plan. A good deal of delay has occurred, but it is hoped that the scheme will be finally carried out.

Hospital Reports.

CLINICAL LECTURE ON DISEASES OF WOMEN.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY PROF. T. GAILLARD THOMAS.

Reported by P. Brynberg Porter, M. D.

Case I. *Anteflexion, giving rise to Excessive Irritability of the Bladder and Probable Cystitis.*

Gentlemen: The case now before us has been sent to the clinic by an excellent gynecologist of this city, and we will now see what we can make of it. The patient's name is Mary H. She was born in the United States, is twenty-seven years of age, has been married three years, and has had one miscarriage, but no children at full term.

"How long have you been sick, Mrs. H?"

"Three years."

"That is, ever since marriage. Were you pretty well up to that time?"

"Yes."

"And have you ever been well since then?"

"No."

(You all, no doubt, remember how often I have called your attention to the fact of the patient's illness dating from some miscarriage or delivery at full term. This is almost universally the case in gynecological practice; but there are exceptions to it, and here is one of them. This patient does not trace her complaint to the miscarriage which has been mentioned, but says that it commenced at the time of her marriage; and she is very positive in regard to this point. Having ascertained this interesting fact, let us go on with our investigation of the case.)

"In what way do you suffer, Mrs. H.?"

"From a dragging pain in the left side."

"From anything else?"

"My urine."

"How does that trouble you?"

"I have a very frequent desire to pass water, and when I do so, only five or six drops come away at a time. Then immediately the desire returns again, and I can get no peace at all."

"Then you are constantly making an effort to empty the bladder?"

"Yes. I pass a few drops of urine from fifty to seventy-five times a day."

(You would probably think this was an exaggerated statement, gentlemen, unless you happened to have some knowledge of this class of cases, which are really terrible in character.)

"Are you any better at night?"

"A little; but I get no ease then, for I always have to get up from twenty to twenty-five times during the night."

(From this account you can readily imagine how this constant loss of sleep must tell upon a patient, and how excessively exhausting such a complaint must therefore be. In these cases, then, we always expect to find considerable derangement of the nervous system present.)

"Is there anything peculiar about the appearance of your urine?"

"No, except that it is a little reddish in color."

"It does not contain blood, I suppose?"

"No."

"Has your physician ever examined it?"

"Yes."

"Did he tell you anything in regard to it?"

"No."

"Have you any other symptoms?"

"Pain in the small of the back."

"Is it very severe?"

"Yes, very violent at times."

"Anything else?"

"Pain in the lower part of the stomach." (The patient, you notice, places her hand just above the symphysis pubis.)

"Anything else?"

"Pain extending down the limbs."

"Anything else?"

"Pain at the back of the neck and running down between the shoulders." (This nuchal pain, which, you must remember, is not a headache, is not infrequent in cases like this, where there is nervous exhaustion; and in order to get relief from it, patients often throw their heads back, or otherwise change the position of the head; which this woman also tells me she is in the habit of doing.)

"Are you ever hysterical?"

"No; but I am excessively nervous."

"How are your digestion and appetite?"

"Pretty good."

"Are your bowels constipated?"

"Not as a rule."

I have drawn out the symptoms very fully and slowly, intentionally in this case, because it answers perfectly to the description which, curiously enough, I was giving you at my very last didactic lecture, as many of you, no doubt, will recall. The principal symptoms here present are referable, of course, to the bladder; but now let us inquire to what cause they are due. A stone, by the irritation it would give rise to, by its presence in the bladder might give rise to them; or, if there were no stone present, cystitis alone might do it. Or, again, there might be some abnormal condition of either the uterus or the ovaries, which would result in such pressure upon the bladder as to set up symptoms as violent as these. For instance, either well-marked anteflexion of the uterus or a fibroid in certain positions would be quite capable of producing them. But whatever may be the real cause, we are groping entirely in the dark in regard to it until we resort to a physical examination; for that is the only way in which we can settle the question definitely.

Accordingly, I proposed an examination here, and the patient being placed upon her back, the first thing that I noticed upon introducing my finger into the vagina was that the cervix uteri was not exactly in its normal position, but pointing a little more towards the hollow of the sacrum than it should have done. Then, by means of conjoined manipulation, I ascertained that the body of the uterus, which I found to be somewhat larger and harder than normal, was lying forward upon the bladder in such a position that the latter was almost completely shut up by it; and, in addition, discovered that the uterus was apparently free from any outgrowth whatever. To such an extent was the posterior wall of the bladder pressed against the anterior wall that the viscus had grown to be exceedingly sensitive; and I was at once struck with the fact that its walls are

much thicker than is ordinarily the case. Then, with two fingers in the vagina behind the cervix, I continued my endeavor to find out whether the anteflexion noted was secondary to any mass behind the uterus which was thus forcing it forward; but nothing of the kind could be detected.

Now retaining the above picture of the case in my mind, I changed the position of the patient to the side, and bending the uterine probe to correspond with the amount of curvature which I judged to be present in the organ, I found that it passed to the fundus without the slightest difficulty, except that its introduction caused the patient considerable pain. As there was nothing else worthy of note about the uterus, I now stopped the examination. In order to make it complete, the urine should also have been examined; but there was not time for this then, and it will be done later. But have we arrived at a diagnosis in the case? I should certainly say that we have; although it may be that a week from now, on making a second examination, I may find that I was mistaken. For instance, at another time I might possibly discover that there really was something behind the uterus pushing it forward, and which was of much more importance than the anteflexion. But, you will say, the uterus would be just as much anteflexed then as it is now. Yes, undoubtedly; but this would no longer be the true diagnosis of the case, as I trust by this time you understand what a diagnosis is.

Well, this poor woman has now been suffering for three years, and the chief symptom of the case has been this constant irritability of the bladder. What was it that happened three years ago to give rise to all this trouble? This it is impossible to determine with certainty at present; but the patient says that at this time she received some very rough treatment, and consequently attributes her complaint to this cause. At all events, it is highly probable that it was on account of some mechanical cause that the uterus became bent forward, as we now find it. In the same way that the affection of the bladder has been set up here by this anteflexion, we find that irritability of the rectum is occasioned by retroflexion of the uterus, so that severe dysentery sometimes results. With a foreign body pressing upon the bladder for three years, we would naturally expect a very marked effect to be produced; and although the statement of the patient that she has to get up twenty or twenty-five times during each night to pass water is probably to be received with some allowance, there can be no possible doubt that in such a case as this there is a vast amount of terrible suffering. As a result of this constant and active work entailed upon it, the muscular structure of the bladder-walls has become greatly hypertrophied (and hence the thickening noted), just as a blacksmith's biceps becomes hypertrophied on account of the continual exercise to which it is subjected. We thus have another influence at work in addition to the direct pressure upon the bladder by the anteflexed uterus; and so both its muscles and nerves are interfered with, and become deranged in their action. One result of all this has been a marked hypertrophy, and I have no doubt that at length a true cystitis has been set up. If this has been the case, however, it is merely a secondary cystitis, dependent upon the antecedent hyperæmia and muscular and nervous irritability. Whether there is actually cystitis here or not will have to be determined by the examination of the urine, which has not as yet been made.

It may perhaps now be asked, Can this patient be cured at once by the replacement of the uterus? and to this I unhesitatingly answer, no. If this woman were cured in six or eight months I should be perfectly satisfied with the result of the case. It is altogether probable that we may have to treat cystitis here; but the very first thing of all to be done is to remove the exciting cause of all the trouble. The first step in the treatment is, then, to restore the uterus to its normal position.

The prognosis in this case depends to a very large extent on whether or not we are able to cure the anteflexion; and I believe that this can be accomplished from the fact that I am perfectly able to replace the uterus by means of the uterine sound, which, of course, should be always used with great caution for this purpose. If, on the other hand, it were not possible to reduce the anteflexion, I believe that the only thing that would afford this poor woman relief would be to make an artificial vesico-vaginal fistula. By thus allowing the urine to escape all the time, the bladder would be kept entirely empty, and so permitted to rest.

Let me now tell you how I should propose to conduct the treatment of this case. At first the uterus should be restored to its normal position about three times a week; the cervix being pulled forward, and a tampon of cotton soaked in glycerine introduced for the purpose of supporting the fundus. After this the patient should remain on her back in bed for forty-eight hours, when the tampon should be withdrawn, the uterus again restored and the other procedures repeated. After a little while an appropriate anteversion pessary should be applied, and then the patient could get up and attend to her regular duties. The pessary would keep the uterus permanently in place, and would, therefore, by relieving pressure greatly diminish the trouble about the bladder. It would not *cure* it, however; and for this other measures would be necessary. By means of graduated sounds, and eventually by the introduction of the finger, the urethra should be thoroughly dilated; and this would have the effect of markedly relieving the spasm which now exists. Then, alterant or deturgant injections into the bladder should be made, and for this purpose very weak solutions should be at first employed; the strength of the injection being increased from time to time as the patient is able to bear it. Thus a single grain of nitrate of silver to a pint of distilled water would be sufficient at first; or we might employ weak solutions of carbolic acid or creosote.

The dragging pain complained of in the left side is no doubt due to the broad ligament being put upon the stretch; although why one of the broad ligaments should be affected in this way and not the other is not very clear. The permanent restoration of the uterus to its normal position will, no doubt, put an end to this, although it may be some little time before the pain altogether disap-

pears. In regard to the trouble about the nervous system seen in this patient, the loss of sleep to which allusion has been made is in all probability its chief factor, and undisturbed repose at night will be the very best remedy for this. This is the view which I take of the case and the plan of treatment which I would suggest for its cure. We must not expect any very prompt and wonderful results in a case like this, which has existed a long time; but still I do not doubt that in the course of a few months, and without any surgical procedure, this poor woman, who now suffers so intensely, could be entirely cured.

Case II. *Large Sub-peritoneal Fibroid.*

The next patient is Mary G., aged thirty-seven, a native of Ireland, and unmarried.

"How long have you been sick?"

"About three years."

"Were you perfectly well before that?"

"Yes."

"What was the first thing that you noticed?"

"A pain about the right hip."

"Anything else?"

"After which the pain got around to the other side too."

"And do you have much pain now?"

"No, only sometimes I feel a great soreness."

"Is there anything else that you complain of?"

"Nothing except neuralgia in the head sometimes."

"Are you quite regular in your monthly periods?"

"Yes; perfectly so."

"Do you have much pain at the time of your sickness?"

"I have a good deal in my back."

"Have you only felt this lately, or have you always felt it?"

"Always, since I first had my turns."

Now, gentlemen, I think you must all have noticed the paucity of symptoms related by this patient, and yet the physical signs, as you will find, present many points of great interest. When I ask her if she feels able to work, she replies that she has been out of a situation for a couple of weeks, and is a little run down, but at the same time she thinks she is quite capable of performing the tasks to which she is accustomed as housemaid. Her pulse is fully as good as my own, and her countenance, you observe, is that of a perfectly healthy woman. The only symptoms of any consequence which she has is one that she has said nothing about before the class, viz.: some enlargement about the abdomen which she has noticed, and when I place my hand over it, I find that it is perhaps as large as the abdomen ought to be at the seventh month of utero-gestation. If such a case should come to you in private practice, a very grave responsibility would devolve on you; for you would be called upon to decide what the character of this enlargement was, and on your decision might depend the good name of the patient. While I have been speaking the same idea has no doubt been passing through your minds which occurred to me when I first saw this woman, and it has probably seemed to you altogether likely that the trouble here present is one of months rather than years in duration, notwithstanding the fact that she states that she has continued to menstruate regularly all along. But her physician, who has sent her here to-day in order to get an opinion of the case, believes that this is a trouble which has now lasted fully three years.

In instituting a physical examination in such a case as this, we should always make the inquiry in our mind, What are the probabilities here? In the first place, it is possible that the enlargement noticed is due merely to tympanites. If this should be the condition that is present, there are certain circumstances about the case that would very satisfactorily account for it. The patient has been out of employment for the last two months, and, having nothing special to occupy her mind, has gotten into a way of moping, so that we would naturally expect to find her digestion impaired. Then, the character of the diet upon which she has been living has no doubt been such as to give her more or less dyspeptic trouble. But as soon as we resort to percussion here, we find that there is nothing like tympanites present. If there were, there would, of course, be a drum-like resonance all over the seat of abdominal enlargement, resulting from the meteorismic inflation of the intestines. So far from this being the case, however, we ascertain that there is everywhere complete flatness instead; like that which is heard when percussion is made over the thigh, for instance.

Again, we may have to deal with utero-gestation here. This abdominal tumor is certainly as large as a uterus in the seventh or even eighth month of pregnancy. When palpation is made over it, however, it does not feel at all like a uterus in this condition; for, instead of being smooth and symmetrical in character, it presents quite an irregular outline. Then, when a vaginal examination is resorted to, a perfect hymen is found to be present. Of course, the presence of such a hymen does not preclude the possibility of utero-gestation. Cases have been known where women having it have gone on to delivery at full term without its being disturbed; but such instances are exceptional, and whenever this is found to be the case, the hymen is usually tough and fibrous. In this patient, however, it is not at all of this character. Like most of the patients whom we get at this clinic, she belongs to the Irish peasantry, and I know of no more virtuous class of females than these. In addition, we find by the vaginal examination that the cervix uteri is perfectly undeveloped, and presents the typical characteristics of the virgin organ.

Having progressed thus far in my examination of the case, I began to suspect that there might be some serious trouble present, and an ovarian cyst suggested itself to my mind. But if it were a tumor of the ovary I felt perfectly sure that the patient would scarcely be as well as she is, after it had existed for three years. The probabilities are that her health would by this time have become very seriously impaired. As I have before had occasion to remark, three years is the average duration of ovarian cysts, when left to nature. Occasionally a monocystic tumor will last very much longer than that, and I once removed one at the Woman's Hospital which had existed for nine years; but such cases are very rare exceptions to the general rule. There are also other negative evidences of the mass not being ovarian in char-

acter; but I have not time now to dwell upon them. I will merely say, in discussing this supposition, that no wave can be excited across its surface.

Probably the next thing that would occur to you would be that we have to deal here with a large uterine fibroid; and without going further into a differential diagnosis, I will state that such a hypothesis seems extremely probable for the following reasons:

1. The fact that the tumor has continued so long without depreciation of the patient's health.

2. The entire absence of any sense of fluctuation in the mass.

3. The lack of symptoms.

It is probable, then, that this is a subserous or subperitoneal fibroma, and that there is no enlargement of the uterus itself in connection with it.

The physician who has had charge of this case has told the woman that the best thing for her to do would be to get admission to a hospital; but if the above diagnosis is correct, I am perfectly sure that this is the very worst thing that she could do. It is far better for her to obtain a situation as a domestic, where she will have constant occupation, as well as wholesome food and cheerful surroundings. In a hospital she would have nothing to do but to think about herself and her ailments; and this, I am confident, would have the worst possible effect upon her condition. Then, again, what could we do for her in the way of treatment if she did go to the hospital? Ergot, although often a great benefit in the other varieties of fibroid, I do not think of much service in the subperitoneal form. It is quite possible that the patient will go on to the menopause without any increase in the size of the tumor, and even if it should become larger, that its growth may be very slow. As to any operation here, I do not hesitate to say that such a procedure would be positively criminal in a case like this. It is altogether probable that if the tumor were to be removed, it would also be necessary to take out the whole or the greater part of the uterus with it. A good many uteri have at different times been removed in New York; but I have yet to hear of the very first case in which the patient survived the operation.* In undertaking the removal of such a tumor as this we never can tell whether it will be necessary to remove the uterus or not; and I regard it as altogether one of the most dangerous operations in surgery. In one case upon which I operated about a month ago, I found it necessary to remove the upper portion of the fundus, on account of its intimate connection with the fibroid; and the patient fortunately recovered. But in the present instance such an operation would be wholly unjustifiable. When a patient has to cudgel her brains in order to get up any symptoms to tell you, you may feel pretty confident that there is no immediate necessity for any operation; and even if the tumor were ovarian in character, it would not be right to remove it as long as her health remained as good as at present. All that this woman needs is sufficient occupation to keep her from growing morbid in regard to her trouble, the most nourishing diet, and a course of such appropriate tonics as will best contribute to render her condition such that further increase of the fibroid will not be probable.

*Since this lecture was delivered, Prof. Thomas has himself successfully removed the entire uterus in one instance; which is the only successful operation of the kind ever performed in New York. P. B. P.

Medical Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated meeting, Thursday, May 7, 1885.

The President, B. F. Baer, M. D., in the chair.

The President read the following report of a case of

Secondary Ovariotomy

and exhibited the specimen, a small papillomatous cyst:

Mrs. S., æt. 33, married first at fifteen years of age; became a widow at twenty, and remarried at twenty-six. Had one child only by the first marriage, seventeen years ago. Enjoyed good health, except that she has always been very nervous, until nine years ago, when she suffered from an inflammation in the pelvic region, which confined her to bed six weeks. Has suffered ever since from profuse and frequent metrorrhagia, with paroxysms of left ovarian pain. About four years ago she also began to suffer from hysterical attacks of an epileptiform character. Two years after these nervous manifestations appeared—in the spring of 1883—she noticed that her abdomen was beginning to swell. The growth continued to increase, and with it the metrorrhagia, pain and epileptiform seizures. She also lost flesh rapidly, and became weak and bed-ridden. In January, 1884, ovariotomy was performed. After her recovery, which was slow and despaired of for some time, she enjoyed comparatively good health. The menstrual flow became regular and painless, and the convulsions ceased entirely. But in the September following, she had another attack of uterine hemorrhage, which lasted three weeks. Pain also returned, in character like that attending the development of the first tumor, but it was now located on the right side instead of the left. In October she consulted my friend, Dr. D. J. Miller. Pain and hemorrhage were at this time very severe, and she was weak and anæmic. On examination, Dr. Miller found an abnormal development in the region of the right broad ligament, about the size of an egg. This was closely adherent to and apparently within the folds of the ligament. It was very tender to the touch, but there were no constitutional evidences of acute inflammation. Shortly after this she had a recurrence of the epileptiform convulsions.

Treatment seemed to control the symptoms for a time, but from the latter part of December they increased steadily. The constant drain from the metrorrhagia, the increasing violence and frequency of the paroxysms of pain and the convulsive attacks, began to tell in a marked degree upon her health in loss of flesh and strength. In February, 1885, through the kindness of Dr. Miller, I saw the patient. At that time the

growth had attained the size of a large orange; it occupied the right side of the pelvis, displacing the uterus to the left, and seemed to be closely attached to the broad-ligament and the uterus. I agreed with Dr. Miller's diagnosis of ovarian cystic disease, and although the tumor was evidently adherent to the uterus, and broad-ligament, and therefore probably did not have a pedicle, I advised its removal for the relief of the grave symptoms.

Operation, April 17, 1885, at 12 m., assisted by Drs. D. J. Miller, Ed. H. Small, and G. P. Perley, in the presence of Drs. B. C. Miller and —— Plummer.

Incision one-half inch to right of old cicatrix, three inches in length, passing through the body of the right rectus muscle. After clamping all bleeding vessels, I opened the peritoneal cavity, and found that the omentum was adherent to the line of the first incision, which had been about eight inches in length; and that adhesions also existed between portions of the intestine and the location of the former pedicle on the left of the uterus. The necessity of pushing the omentum and intestine aside to get at the tumor, and fear of breaking the adhesions by so doing, together with the small size and deep-seated location of the cyst, made the required manipulations exceedingly difficult. When I obtained a view of the upper surface of the tumor, it looked not unlike the pregnant uterus in color and vascularity. Its outer wall was interlaced with a network of veins, some of them as large as a quill. Exploration with the fingers showed it to be so deep in the pelvis and so closely attached to the uterus, fallopian tube, and broad ligament, that they seemed to be one mass, the whole attached by a broad surface to the pelvic floor. The prospect of completing the operation was now anything but bright, because of the danger of opening this very vascular wall for the purpose of enucleation. But I began with an attempt to separate adhesions, and after patient, gentle, but persistent efforts, they began to yield, and I was finally enabled to get two fingers around the posterior surface of the tumor, without producing much hemorrhage. I next passed a small trocar of the aspirator, and drew off about six ounces of a straw-colored fluid. This gave me a little more room, and I now hoped to be able to remove the tumor entire, and with that purpose in view, I endeavored to still further separate it from its attachments; but so much hemorrhage occurred that I was compelled to desist. I next very carefully broke the outer wall of the cyst with my finger, and proceeded to shell out the lining membrane; but it was so friable that it gave way, and my finger entered the cavity of the partially-collapsed sac. I found it filled with a papillary cauliflower-like growth. This I removed to prevent its escape into the peritoneal cavity, where I feared it might propagate by contact if lost and allowed to remain. I then completed the enucleation of the internal surface of the tumor. The thick and vascular external wall was now so thinned and drawn out that it formed a sort of pedicle. This I transfixed and ligatured, cutting away the redundant portion. Then after thoroughly removing all foreign material, I closed the abdominal incision with seven silk sutures, and returned the patient to bed. She recovered promptly from the ether, showing no evidence of shock. At 8 p. m. her temperature was normal, and pulse 126. On the evening of the second day her temperature rose to 101°, and a free metrorrhagia occurred. The temperature fell within a few hours to 99⅘°, and did not afterwards rise above 100°. On the fourth day I found union so complete and solid that I removed the sutures. She sat up on the nineteenth day, and has now entirely recovered from the operation. The result on the hystero-epilepsy and other nervous symptoms will be reported later.

It is of vital importance to every woman who must submit to the operation of ovariotomy, that the condition of the opposite ovary should be thoroughly investigated. If found to be diseased, even slightly, I think it should be removed, to shield the patient from the danger of a probable second operation. But when such nervous symptoms as existed in this case are present, though the opposite ovary should be found to be healthy, I think it is imperative upon the surgeon to remove it, with the hope of relieving these symptoms. It does not add much to the danger of the operation; indeed, in my own practice it would seem to have had the reverse effect, for I have had but a single case of double ovariotomy, though about one-third of my cases have been of that character.

Dr. Montgomery takes exception to the statement of advisability of removal of the other ovary. The second ovary, even if slightly diseased, may be the source of repeated pregnancies. He had, in one case of ovariotomy, left the other ovary, although it was enlarged and contained several small cysts; pregnancies and the delivery of living children occurred subsequently, but there has been no sign of another ovarian tumor. In some cases it might be advisable, but no such fixed rule should be formulated.

Dr. Goodell has performed 144 ovariotomies, and has had secondary operations in two of them in which the remaining ovary was apparently normal at the time of the primary operation. In all cases after the menopause he now removes the second ovary, even if it seems to be perfectly healthy.

The President was much gratified to have Dr. Goodell's endorsement of his opinion upon the advisability of the removal of the second ovary.

Dr. Montgomery reported an

Oophorectomy.

Mrs. C., æt. 42, consulted me in Novembr, 1884, with the following history: She is married, but never became pregnant. Menstruated once when fourteen and not again until seventeen, when she became regular; but the flow was always preceded for a few days by severe cramp-like pains which continued during the menstrual period. In her earlier menstrual life the flow was quite free, but later it has been scanty. The pain was felt in the back and in each inguinal region. She had an attack of small-pox during her fourteenth year, but otherwise enjoyed good health until a few years ago. Two years since she noticed that she was losing flesh, her appetite became poor, she had constant nausea and frequent vomiting; the pain in the back and inguinal regions occurred in the after part of each day, was exceedingly

distressing and interfered with her rest at night. This pain was greatly aggravated by walking, standing, riding in cars, and by coition. When she came under my care she had lost considerable flesh, had a very irritable stomach, and was not free from pain an entire day at a time. The uterus was retroverted, apparently bound down to a thickened mass, posterior only, and presented a catarrhal endometritis. Pressure upon the fornix vaginæ gave rise to severe pain. Some efforts were made to raise the uterus by means of tampons of cotton, but they only increased the pain. The patient soon became unable to move about, and was confined continuously to bed. The pain was constant during the greater part of the twenty-four hours, so that during the last three months she had had but three nights of uninterrupted sleep, though morphia was given daily. The troubles from the first had been ascribed to ovarian disease, and every effort was made to improve her condition preparatory to the removal of the ovaries, but without avail. Her emaciation became extreme, when it was decided to run the risk of the operation. At this time her menses had been absent about two months.

April 1, assisted by Drs. W. H. and C. B. Warder and Dr. Martin, the ovaries were removed. They were situated in Douglas's cul-de-sac, behind and beneath the uterus, and were slightly adherent. Both ovaries were enlarged and hard, and presented a number of small cysts. The latter were found also in the broad ligaments. The wound was closed with silk sutures and dressed with salicylated cotton. Her subsequent comfort was very much interfered with by the pressure from lying, which, in spite of all precautions, produced a small slough over the sacrum. Her highest temperature, 102°, was reached at 6 p. m. on the 20th. The wound healed by first intention. The sutures were removed on the 6th day. After the third day no anodyne was given, but she slept nine hours each night. All her old distressing symptoms vanished as if by magic, her appetite and digestion became good, and she began to improve in general appearance. There has been no recurrence of the pain since the operation.

Dr. Henry Beates read a clinical report of a case of

Condyloma Urethræ,

It having closely simulated epithelioma in appearance. As the routine notes will be uninteresting, they will be omitted. Mrs. D., multipara, æt. 29, sought relief from an intense dysuria, which was of a little more than a year's duration. A history indicating an attack of gonorrhœa, while not positive, was sufficient to render it probable. A year or two after marriage she was attacked with either acute cystitis, urethritis, or gonorrhœa, which disappeared, but was followed, after a lapse of two or three months, by frequent micturition and vesical tenesmus. After a few weeks, a urethral discharge, purulent in character, was noticed, followed soon after by the development of condylomata on the margin of the meatus urinarius. Coincidently, the tenesmus and dysuria increased, and by interference with sleep, and suffering entailed, resulted in impairment of health. Remedies had been prescribed, but no examination of the local condition made. When first seen, the patient was almost constantly harassed with tenesmus, and was suffering intensely. She would retain the urine as long as possible and void it only when the voluntary control of the bladder was overcome by the vesical contraction. Examination revealed numerous condylomata originating from the margin of the meatus and interior of urethra. The meatus and its surrounding neoplasms were bathed in a sanguine or purulent fluid and the inferior border and membrane of vestibule were the seat of destructive ulceration. This latter so closely simulated the appearances seen in ulcerating epithelioma, that that diagnosis was confirmed by a gentleman who saw the case with me. The external growths were snipped off with scissors, and the bleeding bases staunched with nitric acid. After a close preparatory treatment, anæsthesia was produced, the urethra dilated, and the condylomata, which were numerous, and derived from the urethral membrane only, removed with the dull curette. A curious point was the distinct demarcation of the morbid condition, which was limited at the vesical terminus of the canal, and the perfect freedom of the vesical membrane from the growths. A solution of chloral, iodine, and carbolic acid was thoroughly applied, and had the effect of stopping hemorrhage. The ulcerated tissue and a portion of the urethral flow was incised, and the margins treated with nitric acid. The microscope revealed hypertrophy of the mucosa, with increase of epithelial elements and capillaries. Four years have elapsed, and no evidences of return have presented themselves. I believe the cause of these condylomata to have been a specific urethritis, which, becoming chronic by its irritating discharge, determined the growths.

Leiomyoma Uteri.

Mrs. M., German, æt. 37, mother of one child, history free from neoplastic predisposition. At 13 the catamenial function was started, and became regular soon. Congestive dysmenorrhœa for a few months at first; once every twenty-eight days, lasting four days. Married at nineteen; conceived two years later; delivery at term, after a tedious instrumental labor. About a year later a steadily increasing menorrhagia commenced, with leucorrhœa. She was unsuccessfully treated for this for two years, and came under the care of a well-known practitioner of Philadelphia, since deceased, who introduced pieces of lunar caustic into the uterine cavity, and allowed them to remain there until dissolved. After a few weeks the menorrhagia was relieved, and fair health was enjoyed for more than two years. The hemorrhage recurring, she again visited Philadelphia, and was treated with the dull curette and endometrial appliances. She remained free from her trouble for three years, during which time she met with financial reverses, and was subjected to the depressing influence of trouble. She had never been impregnated since the birth of her only child. Hemorrhage recurring, she entered a hospital in western Pennsylvania, where she remained two years under unsuccessful treatment. All treatment was abandoned, and the hemorrhagic condition suffered for nearly five years, when threatening death brought her again to Philadelphia. She attended the

Nurse's Home Charity, where I saw her, as an assistant, in 1879. Her treatment included iodine to the cavity, ergot and gallic acid internally, and the curette. In October of the same year, she placed herself under my care. I was called to see her, and found her in profound syncope. She had occasionally manifested mental aberration, due entirely to the exsanguineous state and for two or three months was bleeding almost constantly. A laminaria tent was promptly placed, and a thorough examination made, which disclosed the presence of a neoplasm, occupying the right lateral and posterior uterine wall. Its contour was regular, base broad, consistence that of uterine tissue. Its submucous location was determined and enucleation effected. The growth was as large as a doubled fist, and required division before it could be delivered. It weighed nine ounces. Profuse bleeding occurred during the operation, and the shock was alarming; reaction, however, occurred. Microscopic examination revealed a typical leiomyoma uteri of the telangiectatic type. When last heard from, a few months ago, she was enjoying excellent health.

(*To be continued.*)

Editorial Department.

Periscope.

Three Cases of Tubal Pregnancy Successfully Operated upon at the Period of Rupture.

Mr. Lawson Tait thus writes in the *Brit. Med. Jour.*, April 18:

These cases are the seventh, eighth, and ninth of their kind which have occurred in my practice; and all of the nine save the first have recovered, and continue, up to the time of writing, in good health. Such a series, though not a large one, is sufficient to prove that these cases may be treated with perfect success under the improved and bolder proceedings adopted in abdominal surgery within the last six years. In fact, they are almost of themselves sufficient, when taken with the established fact that the great bulk of such cases have a fatal termination when left alone, to determine the propriety of immediate operation in all such cases. They also confirm the views which I have already expressed, that cases of extra-uterine pregnancy are all tubal in origin, arising from a ruptured tube about the tenth or twelfth week of pregnancy, at a point which is determined by the site of the placenta. This explains the extreme fatality of the rupture. As not a single instance of extra-uterine pregnancy at the time of rupture has been discovered other than of tubal origin, we are absolutely wanting in evidence that there is any other origin for this displacement.

Case 7. E. D. H., aged 36, under the care of Mr. Wiren, was admitted to hospital on November 24. She had not menstruated for nearly four months, and had never had a child, although she had been married twelve years. She was seized, some time early in November, with a violent attack of abdominal pain, for which she kept her bed and was under treatment. When I saw her, the uterus was fixed and a tender mass existed on the right side. I recognized this as possibly a ruptured tubal pregnancy. I operated on November 28, and found the abdomen full of bloody serum and loose clots. The left Fallopian tube had ruptured to the extent of nearly three inches; it was adherent, and required considerable care in its removal, hemorrhage being very free. The pedicle was tied by the Staffordshire knot, and the pelvis drained. The patient made a very rapid recovery, and went home on January 5. The fœtus in this case was not found; but the placenta occupied the dilated tube, and the rupture had taken place quite at its edge.

Case 8. S. B., aged 41, married at 17, had eight children, the last being ten years old. She had what was supposed to be a miscarriage in May last. The catamenia again ceased in November, 1884. She was sent to me by Mr. Scott, of Wolverhampton, early in February, and I found everything in the pelvis fixed, with symptoms of acute pelvic peritonitis. I opened the abdomen on the 9th, and found a large quantity of serum and clot in the pelvis. I found the fœtus lying loose, close to the ruptured right Fallopian tube, from which the placenta was extruding. The diseased organ was removed with difficulty, and the pelvis drained. The patient made an easy recovery, and returned home on March 5th.

Case 9. A. S., aged 26, under the care of Dr. Malins, had been married nine years, and had had four children, youngest child being 17 months old. After this confinement, she had a long and serious illness. The periods again became arrested just before Christmas. About the middle of February, she was attacked by violent pelvic pain. On the 23d, I found all the pelvic contents fixed. I opened the abdomen, and found, as usual, loose clots, bloody serum, and a largely distended and ruptured left Fallopian tube, in which there was a placenta. The fœtus was not found. The Fallopian tube was removed with very great difficulty, the hemorrhage, during the operation and after it, being very alarming. The pelvis was drained. The patient made a very admirable recovery, and left the hospital on March 11th.

—"I tell you, sir, no woman can be fully trusted," exclaimed a cynical man to a friend. "Why, just look at poor Sniffson. Didn't he love that wife of his? Didn't he think that nothing was too good for her? And how she has requited him!" "How?" asked the other. "Gone and had twins—these hard times."

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JOSEPH F. EDWARDS, M. D., } EDITORS.

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SCIENCE AND PRACTICE.

The gulf between scientific and practical medicine is a wide one. The majority of the profession are practical men, while comparatively few have either the time or inclination to pursue the scientific aspects of medicine. What there is of science in medicine is based rather more upon observation—upon clinical, bedside observation—than upon scientific investigation; though, of course, we all recognize that science and practical observation in our profession are very closely allied, and that they must go hand-in-hand. Yet while we say they are closely allied, at the same time, paradoxical as it may seem, we must repeat our opening sentence, that the gulf between scientific and practical medicine is a wide one.

In no instance is this more thoroughly illustrated than in the mass of literature and talk with which for some time past we have been deluged upon the subject of CHOLERA. From the scientist's pinnacle we have two views spread before us; two views diametrically opposed the one to the other. From one standpoint we have discovered absolutely the cause of cholera; it is a small, curly, living body, the famous *comma bacillus*; from the other, IT IS NOT; this is the scientific position.

The practical side has also two aspects; the one, that held by the younger men, who, having had no experience with the disease, listen to all they hear, read all they can, and prudently conclude to tarry yet awhile before they make up their minds definitely to any formulated belief; the other, that of the older men, who having passed through several epidemics of the disease, having a practical acquaintance with it (many of them familiar with the scientific views), conclude that we know no more to-day about the etiology of cholera than we did in years gone by.

This difference was never better illustrated than in a discussion which recently took place at a well-attended meeting of the Philadelphia County Medical Society, when Dr. Ezra M. Hunt, of New Jersey, read a paper on the prevention of cholera. The speaker did not touch the etiology

of cholera, which was beyond the scope of his address; but in the discussion which followed, the question of causation was thoroughly ventilated by both old and young.

It was held by one distinguished pathologist (Dr. Formad) that cholera was nothing more than a catarrh of the intestinal mucous membrane, and that death was caused by exhaustion. This speaker admitted that he had never seen a case of cholera since he had reached the age of maturity. It was announced by another distinguished pathologist (a disciple of Koch), that the comma bacillus could only live in the vitiated atmosphere of a privy for twenty-four hours, which was rather in contradiction (supposing this bacillus to be the cause of cholera) to the observation of the older gentlemen present, who gave it as their experience that in past epidemics the disease was always most prevalent on ship-board in the steerage, and in cities in the dirtiest portions, and in individuals among those who were the most neglectful of all sanitary rules.

Yet this statement would seem to bear out the reports that last year the scavengers of Toulon, Marseilles, and Naples enjoyed a most marked immunity from the disease. Whether this was due to the law of tolerance, or whether *foulness* really does possess a germicide power in this particular instance, we do not know, though we incline to the former view.

The question of the causation of cholera as of all other zymotic diseases, and, indeed, of many diseases not hitherto classed under the head of zymotic, is two-sided; the scientific, referring it to a living organism, to a germ, about the intimate nature and properties of which we know but little, and are not likely to know much more of a *satisfying* nature, and the practical, which, looking to appreciable surroundings and conditions, seeks to deduce from a number of such observations, some nearly all-pervading circumstances or peculiarities of persons or surroundings that will be accountable for the diseased or morbid condition under consideration. The scientist starts to work out a theory; the practical man seeks to systematize facts and deduce conclusions from them. From this latter class has sprung the collective investigation of disease, a move that promises to do much towards elucidating our knotty problems; from the former class spring individual investigators, many of whom follow closely in the footsteps of others.

Unfortunately, there is a certain amount of antagonism between these two classes. The practical men are much too apt to sneer at the teachings of the scientists, instead of carefully considering the practical value of their scientific investigations. Were the busy, every-day physician to carefully read, ponder over, and practically deduce from the laborious researches of the scientist, we would have a combination that would be very productive. We should be neither too willing to accept nor too anxious to reject; we should be open to receive, to weigh carefully, and to discriminate between that which is chaff and that which is wheat.

Notes and Comments.

Cocaine in Senile Gangrene.

Owing to its local anæsthetic properties, Dr. John Gould (*Brit. Med. Jour.*, March 28,) was induced to try the effects of cocaine in a case of senile gangrene, occurring in an active and excitable man, aged 67. He had worked hard, both mentally and physically, and the heart's action was very feeble. About fifteen years ago, he had a serious attack of suppressed gout and congestion of the liver, and, some time after this, he suffered from diabetes. He informed him that his father and grandfather both died of gangrene of the feet. He came under Dr. G.'s care suffering intermittently from indigestion and sluggish liver; this was followed by œdema of the feet, and a return of the diabetes, which, under suitable treatment, soon disappeared.

Shortly after this illness, he complained of pain in the second and third toes, which continued to increase, and, at the same time, the toes grew dark in color, eventually becoming unmistakably gangrenous. The gangrene gradually extended to the dorsum of the foot for about three inches; the pain was perfectly agonizing. Amongst other applications, poppy fomentations were tried; linseed poultices saturated with laudanum; painting the part with equal parts of tincture of aconite,

opium, and chloroform; also an ethereal tincture of belladonna; none of which gave the slightest ease. At night, the patient had a draught of bromide of potassium and hydrate of chloral, twenty grains of each, with eight grains of Battley's solution of opium; this had frequently to be repeated before sleep could be obtained.

He now thought it to be a fair case for the trial of cocaine, and accordingly applied a four per cent. solution of the hydrochlorate, first rubbing it into the sound skin contiguous to the gangrene, and afterwards applying a piece of muslin saturated with the solution. Over all, a piece of gutta-percha tissue was placed, to prevent evaporation, the gangrenous part being dressed with carbolic oil. The result of the first application was highly satisfactory, the pain diminishing considerably; the subsequent applications, made once a day, were followed by a most decided relief, so that half of the night-draught was sufficient to procure sound sleep for many hours.

Of course, cocaine was not used with an expectation that it would either cure, or even arrest the progress of the disease, but with the hope that it might mitigate the excruciating pain, which it did in a most decided and satisfactory manner up to the last, thus affording as much comfort to the friends as it did relief to the suffering patient.

The Communicability of Consumption.

Apropos of the present vexed question as to the contagiousness of consumption, or, to speak more scientifically, of pulmonary tuberculosis, we note, as of interest, a case which Dr. John C. Thorowgood reports in the *Brit. Med. Jour.*, May 2, 1885, as having occurred in his experience long before we had heard of the tubercle bacillus. He says:

A woman was admitted, under my care; and, when I had examined the upper part of her chest, I said that the apices of the lungs seemed clear. When I examined posteriorly, I found a well-marked cavity at the base of the right lung. The existence of this limited disease caused me to inquire rather specially into the history of the case, and I learned that this woman had for many months nursed her husband, who had died of consumption, and who suffered much in his throat. I remember observing to my assistants, at the time, that it really looked as if a germ of disease had been drawn by the patient into the right bronchus, and this had set up destructive disease in the lower part of the right lung. The patient left the hospital much relieved, and I have not heard of her since. We know that in warm countries, such as Italy and Spain, consumption is regarded as a contagious disease. I can understand this; for it is in such climates where the most active and rapid forms of consumption occur, and the disease is often brought to a high state of cultivation by the way in which the patients are confined to close, airless rooms. Tubercle-bacilli grow and multiply in a congenial soil, just like mushrooms on a dung heap. In cold climates, the disease is very often of inflammatory origin, and fairly amenable to treatment.

Practically, I do not think there is any risk to persons, whose mucous membranes are sound and well nourished, in attending upon those who are ill with any form of phthisis, provided the attendant do not sleep in a room with the patient, and get a due allowance of open-air exercise. When, however, any one who is about among consumptive people begins to cough, it is a sign of disturbed and enfeebled mucous membrane; the soil is being prepared for the bacilli; and at once such an one ought to get right away from all that savors of phthisis, and make a sea-voyage.

Special Report.

OPHTHALMOLOGY.—NO. XVIII.

BY CHAS. S. TURNBULL. M. D.,
Of Philadelphia.

(*Continued from page* 699.)

"*Three Cases of Restoration of the Eyelid by Transplantation of a Flap Without a Pedicle*" were reported by Charles Bull, M. D., of New York, and "*A Successful Case of Skin-flap Transplantation Without Pedicle to Lower Lid After Removal of an Epithelioma*," is instructively reported by B. E. Fryer, M. D., of Kansas City, Missouri. He says: "Successful cases of transplantation of skin-flaps from distant parts, without pedicle, have been sufficiently numerous to give the operation a permanent place both in ophthalmic and general surgery. Those who have done the operation in the last few years have not always followed Wolfe, who originated it, either in the operative procedure proper, or in the dressing afterwards; and it would seem that especially a simpler and probably a more effective dressing than Wolfe's, as far as the retention of the flap is considered, has been sought by later operators;" and Fryer makes the point that "his dressing was increased, it is believed, in its retentive power and simplicity, and lessened in part of its quantity, and the patient, therefore, was relieved of some of the irksomeness."

A Case of Gangrene of the Lids, with Subsequent Restoration of Tissue without Plastic Operation, is described by Richard H. Derby, M. D., New York, who says: "It seems to me that in connection with the papers which have been read on Wolfe's operation, my case is not without interest, illustrating, as it does, how efficiently nature herself replaces lost tissue without the assistance of the surgeon's knife."

A unique and interesting *Case of Hysterical Monocular Blindness, with Violent Blepharospasm and Mydriasis—All Relieved by Mental Impression*—is described in detail by George C. Harlan, M. D., of Philadelphia.

L. D——, sixteen years of age, first came under my observation September 24, 1883, at the Throat Department of the Philadelphia Polyclinic, under the charge of Dr. S. Solis-Cohen, where she applied for relief of distressing symptoms caused by the development of a fungus growth upon the tonsillar mucous membrane.

Having been thus initiated in the charms of medical treatment, she was, on December 26, on account of the development of various nervous symptoms, referred to the Nervous Department under Dr. Mills, who has furnished me with the following record of the case: "She was taken sick last September with sore throat, and was confined to the house for about two weeks. She was very weak during this attack. Dr. Cohen attended her, and there was some doubt about the throat difficulty being diphtheria, but this throat trouble was followed by difficulty in swallowing and regurgitation of food through the nose. At the same time there was noticed a gradual weakness of sight in the right eye. After these troubles had somewhat lessened, huskiness of the voice came on, and was soon followed by complete loss of the voice," etc.

Neuro-Retinitis, with almost Sudden Loss of Sight in Both Eyes, is graphically treated by H. Knapp, M. D., of New York, who cites two cases.

"During the last year two cases of almost sudden loss of sight in both eyes, with the picture of optic neuritis, came under my observation. In the one the blindness remained permanent, with the exception of a small island in the visual field of the right eye; in the other case, sight was perfectly restored in both eyes. The blindness in both cases was binocular and absolute, with complete immobility of the pupils on changes of light, in the first case for several months, in the second for three days. There is nothing very unusual in the recovery of sight after neuro-retinitis from meningitis and other diseases, much less unusual is the permanence of blindness after neuro-retinitis; but total blindness occurring in the course of several hours, being accompanied by nothing but choked disc—constitutional diseases, such as albuminuria, diabetes, syphilis and the like, being absent—is certainly very rare. In my own practice I do not, at this moment, recollect any other cases, and the literature on the subject is so meagre that the communication of the cases mentioned may not be without interest to the members of this Society and the readers of our Transactions." The cases are well worth a careful reading by those interested.

A carefully-written paper, and one worked out in the German style of thoroughness, treats of *Hereditary Atrophy of the Optic Nerves*. By W. F. Norris, M. D., of Philadelphia. N. says:

"Since I presented to the Society, in 1881, a paper describing the history of a family in which atrophy of the optic nerves was hereditary, and of which two members submitted themselves to me for examination, I have again encountered another group of individuals exhibiting this remarkable affection: a family of seven children, all of whom, as well as their parents, I had an opportunity of carefully examining. Every child was affected, while the parents had perfectly healthy eyes. According to their intelligent account of the affection, it extended back on the mother's side; the disease attacking the great grandmother, a grand-uncle, two uncles, and several cousins. It is unusual to have an opportunity to study such a group of cases at various ages and in various stages of the disease, thus enabling us better to appreciate the progress of the malady. It is well known amongst breeders of animals, that the phenomenon of atavism, or the transmission of qualities of a progenitor which first develop in the second generation, is frequent. We, as students of diseases of the eyes, occasionally have an opportunity of witnessing the same law in the inheritance of perverted nutrition of the tissues of these organs. Our most frequent opportunity of studying transmitted disease is, however, undoubtedly where the transmission is direct from parent to offspring, as in the case of that form of interstitial keratitis due to hereditary syphilis. Here, as well known, the disease usually remains limited to the cornea, although it may secondarily invade adjacent tissues. This we can readily understand, when we consider the peculiar anatomical construction of the diseased tissues, so different from that of the contiguous structures. We cannot, however, so easily comprehend why certain delicate nerve-fibres of the optic nerve and retina,

which are in a state of œdematous swelling with proliferation of the surrounding connective tissue, should for so long a period of years exhibit such well marked pathological changes, notwithstanding that the adjacent fibres, which have a common anatomical structure as well as a common lymph (and blood) supply, remain comparatively unaffected. Are we to consider that these pathological phenomena are a manifestation of a local force treasured up in the cells of the tissue itself, or of perverted energy lurking in the distant but corresponding cells of the central nervous system? The manifestations of the disease under consideration begin with the formation of central scotomata, first for color only, so slight that the different hues, though dimmed in intensity, are still readily recognized. The defect gradually progresses until a complete scotoma both for form and light is developed. The peripheral parts of the retina are affected later, and when they are involved, often lose to a marked degree their sensibility to color, but rarely to form and light. Although the patient is debarred by reason of his loss of macular vision and his color-blindness from most useful and remunerative occupations, he still retains sufficient peripheral sight to guide himself and to do a certain amount of coarse work." Then follows the clinical histories of those of the family coming under his immediate supervision.

Jequirity Ophthalmia is again stirred up by Jos. A. Andrews, M. D., New York, who, from experience, warns us not to play with explosives. He commences: "Having quite recently considered, at some length, the subject of jequirity ophthalmia, I desire here to limit my remarks to a brief review of certain papers that have appeared on the subject in question since my own communication alluded to above was published.

"First, is jequirity directly responsible for the disastrous results which have been placed on record as having followed its use?

"However, if we compare the number of authors who have declared themselves for or against the jequirity treatment, we find that the former are conspicuously predominant, and it would seem that those authors who do not favor the remedy, such as Vossius, Galezowski, and Nicolini, might change their views if their experiences were extended to a larger number of selected cases.

"Scrofulous pannus, sclerosis of the cornea, are favorably influenced by jequirity, and I have had very gratifying results in this class of cases in improving the vision; but I have never used the remedy, as DeWecker has, in torpid ulcers of the cornea—firstly, because I could not satisfy myself that the cornea was not placed in still greater danger by its use; and secondly, I felt that I could rely on safer and really satisfactory means. However, of course, mere conjecture should not be permitted to weigh against the results of experience, and DeWecker's experience seems to speak in favor of the remedy in this class of cases."

We would urge upon those who might be tempted to use the infusion of the jequirity bean, in any given case, to make themselves familiar as to the proper sort of cases in which to start a jequirity ophthalmia, and to the precise strength and mode of application of the infusion used as well. Having considered their reputations at stake, they are then to proceed with extreme caution.

(*To be continued.*)

News and Miscellany.

Pennsylvania State Medical Society.

The thirty-sixth annual session of the Medical Society of the State of Pennsylvania convened at the Court House in Scranton, May 27. Dr. Everhart delivered the address of welcome, on behalf of the medical fraternity, and in doing so referred to the city of Scranton as the third in the State, and the largest in the Union of its age. The address was delivered in an extemporaneous manner, and though not lengthy abounded in well-rounded periods. Dr. Everhart then announced the programme to be observed during the week outside of the convention.

Judge Hand delivered the following address:

GENTLEMEN: You have been cordially welcomed by your own fraternity. It has been assigned to me to extend a like cordial welcome from the county at large. Our generous and faithful County Commissioners have opened wide the doors of these halls of justice for your entrance, and bid you take possession at your will. They join with us also in this expression of the general welcome. We are all glad to see you, and feel honored that you have come to this youngest of the counties and this third city of the Commonwealth to hold your deliberations. You will find us alive to all that is good in the healing art. If you take the trouble to investigate you will find that in activity, wealth, good order, obedience to law, harmony among ourselves, a growing sense of the high obligations resting upon us to make the most for republican institutions and government, in rapidity of growth in population, public works, schools and churches, we are second to very few, if any, of the counties of this noble Commonwealth. We are aware that with the intermingling of so many nationalities and interests, occasion, not cause, has been given for slanderous reports about us in some parts of the State, but we are too busy and too philosophical

to answer these, knowing that in due time they will answer themselves. But such as we are, with our virtues and our vices upon us, we welcome you all. Our farmers from Benton, Greenfield and Fell townships on the north, to Clifton and Buck on the south, our miners, artisans, merchants, laborers, clergymen, lawyers, ladies—the old and the young, the rich and the poor—all welcome you heartily. We invite you to our homes, our workshops, our factories, our hospitals. The signs "no admission except on business" are all down to-day for the doctors. We trust you will have a good time while with us, will regret when you leave, and will desire to come again. We welcome you first of all because we are glad to see you. Secondly, because of your self-sacrificing devotion to your profession and humanity. Few martyrs are found in this age except in the medical profession. Thirdly, we welcome you because we are too smart not to do so; a lively sense of our own interests and dependence induces us always to be on the right side of the doctors. A man must never quarrel with his doctor nor his cook. To meet the doctor when we need him is a comfort; to meet him when we do not need him is a pleasure; but the moment of supreme happiness (to the lawyer at least) is to meet him when the doctor needs the lawyer. Feelings, as it were, are reversed then, you know. You have, in your order of exercises, honored the two professions of theology and law. You recognize the old term, "the three learned professions." The disciples of Coke and Litfleton are glad to acknowledge this courtesy from the disciples of Æsculapius. While the three professions differ in some particulars, there is after all something of a similarity in our aims. Theology mipht be defined, the science which contemplates the eternal union of soul and body. Medicine, the science which postpones their separation to the longest possible period. Law, the science which, while the soul and body are in conscious union, averts the beginnings of schism both in the individual and the body politic. We are each willing, metaphorically speaking, to look after the health of our neighbor. One the health of the body, one the health of the soul, the other a healthy maintenance of individual and public rights—the demand of both soul and body. We all agree in our appreciation of a proper fee. We all are expected, like the grand juror, to keep, if not the Commenwealth's counsel, our fellows' and our own secret. It is a grand work we are all engaged in, to know the body, the soul, human rights, to gather this knowledge for the behefit of the human race, and pass it on increased and purified to the oncoming generations. Distinctions are sometimes invidious; nevertheless, we of the legal profession must admit that you have some honors that we cannot attain unto. As a profession, you share with the soldier on the battle-field, honor, glory, and self-sacrifice at the call of patriotism. In the investigations of science as related to the healing art, you have pushed zeal so as to add to the permanent useful knowledge of the world. In these fields you have honored names that shall live through all time. The Divine Teacher did not call himself a preacher; he repudiated the title of judge on the earth; he called himself a physician. We have some common difficulties. In the legal profession we find men will not circumvent the law according to rule. A clear old-fashioned larceny or trespass we can understand and apply the law, but when it is toned down or up and we have a case with a little honesty, some shrewdness, one eye sharp on the law, an undercurrent of overreaching and selfishness, and a claim of charity, we have a mixture that taxes all our intellect and puzzles "the Philadelphia lawyer" to give it a name. I suppose a clear case of measles or typhoid fever you can understand, but when men will repudiate all old-fashioned rules of diagnosis, mix up the nerves, the blood and the tissues in one complication of disorder, then terms and medicine and skill are all put to the puzzle. We have some advantages over you. When a man has forfeited all claim to life, it is the prerogative of the law alone to put an end to it. We have this both by divine and human authority. We do it by a process not laid down, I presume, in your books as a disease. If so, it is a disease for which society is not interested to find a cure except through moral influences, to prevent the first cause. We intend to always execute this part of our duty so there shall be no mistake as to the cause of death. We then turn the corpus over to the doctors, to find out if possible why the man lived. You have some advantages over us. Our (legal) mistakes, if any, are spread upon the public record or hung high before the world; your mistakes are either in Latin or in the ground. We congratulate you, gentlemen, on the grand success of your profession, on the honor Pennsylvania has derived from your celebrated skill. No State, and I believe no country, can furnish a better record for skill, devotion to scientific inquiry, than the Keystone State; and none to-day are challenging the world more to faithful investigation and skillful experiment for the good of mankind than the physicians and surgeons of this Commonwealth. Your meeting to-day in this high and honorable intercourse is a guaranty that this investigation is never to cease, but is to bring even grander results in all the future. We wish you pleasure in your deliberations, and that their outcome may be, as we have no doubt it will be, pleasure to yourselves and profit to all mankind.

After the transaction of routine business, Dr. S. S. Schultz, of Danville, delivered the

ADDRESS ON MENTAL DISORDERS,

choosing for his subject the reason for that specialty in medicine concerned with the treatment of insanity, found primarily in the peculiar functions of the diseased brain, whose disturbance is followed often by erratic and dangerous conduct.

He said that this requires some such control as is afforded by an insane hospital. The purpose of the address, however, is rather to bring out analogies than contrasts.

His paper included definitions of insanity. Their lack of uniformity, due chiefly to the unlike experiments and characters of those who make them. Insanity not properly a disease, but a combination of symptoms like diarrhœa, dyspepsia; these symptoms the result of disorder in the instrument, the brain, through which the mind acts. These disorders may be of many kinds—the laws which govern them are the same

which govern diseases in other parts of the body; their nature, course, treatment and results therefore the same.

After which Dr. Charles S. Turnbull delivered the

ADDRESS ON OTOLOGY.

His aim was to say, tersely, all that might be of use to the busy practitioner, and he considered this special branch of surgery practically and in a general way, and described what he termed "a new departure in local aural therapeutics."

He said that his experience had taught him that, in the treatment of most cases of disease of the ear, any lack of success was due more to sins of commission than to those of omission.

This was especially the case in the ear diseases of childhood. He deprecated syringing, and the use of water in any way in connection with the cleansing of the external auditory meatus. He urged parents to cease their efforts to cleanse children's ears by the use of soap and water, twisted-up corners of wet towels, handkerchiefs, and wash-rags, and told how useless the little instrument called the "Aurilave" is to the user, and how beneficial, pecuniarily, to the aural surgeon; mentioning some of the dangers accompanying the wearing of ear-rings, proving by logical reasons the force of his objections. The address was virtually a short lecture in practical otology, with hints on the hygiene of the ear.

The points, to be appreciated, call for a reading of the paper in toto, as his advice, being the result of years of careful observation, should be of marked and special value.

One especially valuable hint to mothers, as well as to those who are to advise them, is that concerning the rearing of young children, whose noses are usually allowed to take care of themselves.

Every child should be taught to blow its nose. If it has not been or cannot be taught to free the nostrils of mucus, its chances for retaining hearing power in case of acute or sub-acute disease of the middle ear are much poorer than in the case of one who has learned to blow its nose. Handicapped by being unable thus to free its nostrils, a child cannot possibly inflate the tympanum or middle ear, and clear the Eustachian tubes, so that the dread exanthemata must, as a rule, mean deafness.

Forcible dilatation, by Politzer's method, is generally sufficient in the case of adults, but will not answer for children, who only become demoralized and terrified by the presence of any one who has been so injudicious as to attempt its use.

For children, Dr. Turnbull recommends his own method, which he describes as follows: one nozzle of an ordinary auscultation tube is protected by a perforated "lead-pencil rubber cap" slipped upside down over it. This is called the nose-piece, and can be held firmly, as it plugs one nostril and acts as a point of support upon which to close the other. As the child cries lustily or else blows out (as if to blow out a light), the surgeon, having the nozzle at the other end of the tube in his mouth, blows a quick, short blast, which invariably inflates both ears. Once assured that the procedure does not cause them pain, children enter into the spirit of it and blow with a will.

The great secret in the successful treatment of all discharges from the ears is dependent upon the fact that fermentation and putrefaction soon occur in the moist auditory meatus. So long as a discharge is not allowed to ferment it will not become fetid, seldom even purulent.

Eczema (otitis), externa eczematosa of the auricle, and external auditory meatus, whether in a child or in an adult, is generally a disease of neglect or injudicious interference. In children it is apt to be the former cause; in adults the latter; but it is usually induced by the use of soap; in adults it is generally caused by meddlesome attempts at ablution. In children, eczema readily yields to treatment, providing soap and water be left out of the question, while in adults it is more persistent and stubborn, recurring monthly, perhaps, for several years. Mild cases yield to the constant application of a weak mercurial ointment, while chronic cases require the application of a saturated solution of nitrate of silver.

Boric acid, if properly used, *as an impalpable powder*, still holds its own as a specific for chronic otorrhœa, and not for acute otorrhœa (except when the discharge is *fetid*).

This latter class of cases calls for an "aqueous boracic acid solution."*

For the army of those unfortunate beings suffering from deafness and roaring in the ears, and classified under the head of plastic (cicatricial) inflammation of the middle ear, all treatment still remains unsatisfactorily experimental. Instrumental interference, such as the use of the eustachian catheter, or bougie, the forcible introduction of vapors, etc., except in the hands of an expert, Dr. Turnbull considers meddlesome, as well as useless. Where Valsalva's or Politzer's method cannot be made available, further interference is apt to be harmful.

In the treatment of "tinnitus aurium" the different preparations of the erythroxylon coca are to be especially lauded, not only because of their direct local effect on the throat and rhinopharynx, but also for their anæsthetic effect on the mucous membranes generally. In this connection, hydrobromic acid in conjunction with bromide of sodium is not to be forgotten, especially in cases of tinnitus due to disorders of cerebral circulation, dependent upon nervous irritation.

Diseases of the internal ear characterized by profound deafness and a peculiar form of tinnitus (sharp, shrill, ringing sounds), are usually caused by specific disease or traumatism, and seldom yield to treatment. Those of syphilitic origin which might have yielded to a full specific course, are generally of such long-standing that little else is left to be done other than to make a diagnosis.

Dr. Turnbull called especial attention to a disease (not unlike boiler-maker's deafness) which he styles "mill-operatives' deafness." This is a disease of the auditory nerve, caused by a prolonged succession of concussions (erschutterung) and irritation from the rattle and din of the machinery. The first grave and characteristic symptom of which is that known as "paracousis Willi-

*Trans. Penna. State Med. Society, 1882, p. 189.

sii," or the power of being able to hear distinctly only when in a noise.

In conclusion, he urges practitioners who are unable to obtain the immediate aid of a specialist, not to prescribe on a venture, but to be persuaded to simply illuminate the external auditory canal with a concave mirror, and search for the cause of deafness. Impacted or inspissated cerumen can always be safely removed by syringing with warm water, which procedure is the only one in which the use of water is permissible; even here, however, had water not been injudiciously used in the first place the wax would not have become packed.

Dr. Edward Jackson, of Philadelphia, then followed with a paper on

THE DIAGNOSIS OF INCIPIENT CATARACT.

Saying: Cataract, though perfectly amenable to treatment, is still one of the most dreaded diseases of the eye. This is mainly because it is blamed for the effects of other lesions. This would be largely avoided if practitioners of medicine were generally more skillful in its diagnosis. Subjective symptoms are of little importance, except as they point to other affections complicating cataract. In this connection it should always be borne in mind that the uncomplicated advance of cataract is always absolutely painless. The results of examination of the pupil by oblique illumination are often inconclusive or unreliable. The best way to detect partial opacity of the crystalline is to throw into the eye the light from an ophthalmoscope mirror; and then to look at the general red glare obtained from the back part of the eye. In doing this the surgeon looks through the suspected lens, and all opaque portions become noticeable as black spots, lines or patches, in the red circle of the pupil. For such an examination no costly ophthalmoscope is needed. Any piece of looking-glass, with a hole scraped in the silvering for the observer to look through, suffices perfectly.

But when lens opacity has been recognized, the diagnosis of cataract is only just begun. The practical question is: does the lens opacity cause the symptoms complained of? Incipient cataract might be present and cause no inconvenience whatever. On the other hand when cataract exists, other lesions of the eye, nerve atrophy, choroiditis, or ametropia are very apt to be present. The complete diagnosis of cataract demands ability to recognize all conditions that may impair vision, with the judgment and information necessary to assign to each its proper share in the causation of the patient's symptoms. The best measure of the extent to which lens opacity interferes with the patient's seeing is the extent to which it interferes with the surgeon's inspection of the optic disk and retinal vessels of the affected eye.

Following which Dr. F. D. Castle, of Philadelphia, read a paper on

SOME POINTS IN OPHTHALMOLOGY WHICH MAY BE OF INTEREST TO THE PHYSICIAN IN GENERAL PRACTICE,

In which the author calls attention to some points in ophthalmology which may be of interest to physicians engaged in general practice. The first is, how to determine whether a case of blindness or defective vision is due to cataract or not, if the appearance of the pupil is such as to warrant the belief that the lens is opaque.

After alluding to the fact that it has not so infrequently happened that a case has been diagnosticated as cataract simply in consequence of a somewhat greyish appearance of the pupil, in which the lens was not at all or only to a slight extent opaque, and, even in the latter case, not sufficiently so to explain the serious defect of vision existing, the author urges the advisability of one always being sure of our diagnosis in cases in which there seems to be grounds, in the appearance of the pupil, for pronouncing the defective vision to be the result of cataract. If the patient is told that he has cataract, which all the world knows to be curable by operation, and it should turn out that the case was one in which the greyish appearance of the pupil was only deceptive, and the mischief causing the defective vision was seated farther back, in the fundus of the eye, and perhaps of an incurable character, the patient's disappointment would be great, and the reputation of the physician who called the case one of cataract would not be benefited. Such mistakes can positively be avoided by a careful examination, and this examination does not necessitate the use of the ophthalmoscope, the skillful use of which will always, in all probability, remain confined to the ophthalmic surgeon for the most part, as the art of using the instrument must first be acquired, and practice is necessary to maintain the skill that has been gained in its employment. In the examination just alluded to, particular attention must be paid to the following three points in every case in which cataract is suspected, but the appearance of the pupil is not so strikingly opaque as to leave no room for doubt. The first of these points is simply a recognition of the fact, that in old age the pupil loses often the deep jetty black hue which it has in early life. A slightly greyish shimmer is, therefore, scarcely to be considered as an abnormality in the pupils of old people. If, in a case of this kind, focal illumination be employed, *i. e.*, if the rays from a gas-burner in a darkened room be condensed by a strong convex lens in such a way that the apex of the cone of light thus formed falls upon the pupil, so intense a greyish reflex will stream from the pupil, that an uninitiated person might consider the diagnois of cataract as confirmed, although no centricular opacity whatever exists.

The second point (and a very important one) has reference to the perception of light. The blindness in cataract is more absolute. A person blind from cataract only, the other parts of the eye being healthy and the cataract ripe, should be able to perceive the light of a candle in a darkened room at a distance of twelve feet. The field of vision, as tested by moving a candle round in front of the eye, should also be free. The author adduces a case which had been pronounced cataract, in which the pupil appeared somewhat greyish, but perception of light was absolutely wanting. If the light perception had been tested in this case, the faulty diagnosis would not have been made.

The third point involved in the examination of

the lens, has reference to the importance of the image of a flame formed by the posterior capsule of the lens. The author shows how to produce and recognize the images of the cornea and posterior capsule. In the case of a ripe cataract it will be, of course, impossible to produce the image of the posterior capsule, as the opaque lens substance, in front of the latter, will prevent the penetration of the light rays. In a case of partial cataract, the image of the posterior capsule may be visible in some portions of the area of the pupil, but not in this. In case the lens is very slightly but differently clouded, the image of the posterior capsule may be indistinctly visible, its edges being blurred and ill-defined, however, and not sharp as under normal conditions.

The second point considered in this paper, is the probable diagnosis of cases of eye-strain, i. e., cases in which the symptoms may be relieved by the adaptation of suitable glasses. The author discusses the symptoms which are more or less common to all cases of eye-strain, whether dependent upon hypermetropia, astigmatism, myopia, etc., by paying attention to which the general practitioner will recognize the character of the trouble at a glance, with the same facility as the specialist.

The third and last subject of discussion in the paper, is the necessity for the early recognition of acute glaucoma, and the avoidance of the use of atropia in any such case. It has occasionally happened that physicians, not at once differentiating acute glaucoma from other inflammatory affections of the eye-ball, and acting on the general principle, that atropia is of service in many inflammations of the globe, have used this drug as a palliative when under the circumstances a speedy operation was indicated, and should have been employed, if it were thought desirable to use "eye-drops" at all. If the physician is at all doubtful about the diagnosis, he should employ agencies of which he is certain that they cannot by any possibility do any harm (until competent assistance is obtained), used as warm or cold compresses, as may be most grateful to the patient, leeches to the temple if the eye is very red and there is great pain, morphia, etc. As mydriatics may excite an attack of glaucoma in an eye which has a predisposition for it, it is evident that they should not be used when the eye has been attacked by the disease.

Dr. E. T. Bruen, Assistant Professor Physical Diagnosis, University of Pennsylvania, delivered the Address in Medicine, of which the following is an abstract:

The address in medicine was doubtless originally intended to present a comprehensive summary of the annual progress of advancing investigation. At this era, however, medical journalism has reached such a complete development, and abstracts and reviews have rendered us so familiar with the progress of medical thought, that it becomes a temptation to use the opportunity to present a monograph upon some subject which has been made the special study of the writer. However congenial or instructive such a plan, it seems to me more consistent that this paper should contain a résumé of the present status of thought upon the more important subjects which have excited general interest in the past year, while at the same time, some more purely personal observations may be submitted.

PATHOLOGY AND ETIOLOGY.

In tubercular disease it has been established that a micro-organism, the bacillus of tuberculosis, is constantly present. The inoculability of the tubercular material from pure cultures is also proven, and its casual importance is claimed by an increasing number of clinicians and pathologists. It is, however, a fact that healthy tissues can resist the inroads of the microbes and constitutional predisposition or acquired ill-health are a constant source of menace if the new etiology should prevail. But there also exist cases of abdominal tuberculosis without pulmonary lesion and even cases of cheesy deposit in the lungs in which the bacillus is not present, however careful the search. These cases radiate foci of infection through the lymphatic channels, and in this manner differ from a case of tubercular matter in which a bacillus exists, for in the latter case the entire system may be involved. There also exist the forms of interstitial phthisis known as pneumonikomosis or artisans' phthisis, in which the appearances are often very similar to the admittedly tubercular forms, but which are minus the bacillus.

Allusion was also made to Professor Hamilton's researches into the anatomy of the bronchial mucous membrane as illustrating pathological basis for the chronic character of many forms of bronchitis.

A very brief allusion was made to the subject of cholera, owing to the scope of the subject and the fact of its presentation by an able hand the same afternoon. The opinion of its communicability by means of fluid media was warmly supported as proven by modern research—the same argument applying as is used to explain the spread of diphtheria, which is a disease known to be communicable by fluid media as well as directly from individual to individual. Koch seems to have demonstrated a specific bacillus. The same demonstration of a specific microbic poison is sought by some for diphtheria; possibly in both cases, the exact poison is yet to be discovered.

The propriety of boiling the drinking water is unquestionable, and certain disinfectants lessen the active force of the virus, as corrosive sublimate or the sulphate of copper. The free use of water in sewers, the burning of the dejecta, was recommended.

Albuminuria.—The importance of high arterial tension, when continuous, cannot be overestimated, since Bright's disease has for its aspects the renal and the cardio-vascular. The views of the late Dr. Mahomed upon this subject were cited, viz: that acute or chronic blood poisoning forms the first step in the process, this is followed by an increased arterial pressure, and consequently by functional hyperæmia of the kidney, this being the chief excretory organ of the body. When high arterial tension is inaugurated, a chill, constipation, or an excessive amount of the poison may increase the hyperæmia to a more severe inflammation, and this gives rise to albuminuria.

When the change is more chronic, albuminuria may be only occasionally present, and that in small amounts, but cardio-vascular changes produced by high arterial tension develop, and the vessels thicken.

Albuminuria may also occur by changes advancing too rapidly in the capsules, until they strangle the vessels they contain, or the outer-lobular changes may be considerable, and bring about a like result by compressing the tubular plexus.

The real diagnostic question was in each case, not is there albuminuria, but is the kidney doing well its functional work of elimination, and the study of the heterogeneous elements of the renal secretion by the sp. gr., or quantitative analysis, is supremely important.

The duration of cases of Bright's disease was considered as really much longer than is customarily thought, but no albuminuria can be physiological if persistent.

The causes of albuminuria not due to serious renal mischief, were thought to coincide with the times of increased fulness of blood in the kidney, which is produced by general causes, such as effects of food and fasting, of upright posture as compared with the horizontal, the warmth of bed versus exposure of the surface, of exercise versus rest. Nervous forms of albuminuria may occur in young adults at puberty, due to excessive irritation of the genito-spinal center, with reflex cerebro-spinal symptoms. The common association of albuminuria with cases of ophthalmia is more frequently vaso-motor than due to renal disease, and Granville has shown that albuminuria can occur in elderly, but intensely nervous persons, the focus of irritation residing either within the cranium, or at the cilio-spinal axis. Cystitis or gout may give rise to forms of albuminuria, and Granville was quoted as showing that there is no reason why, under the influence of nervous depression and vaso-motor disturbance. the kidneys should not become œdematous in the same manner as an hysterial point.

In testing for albumen, a preference was expressed for the heat with nitric acid and the picric acid tests.

The former will detect one part of albumen in from 6000 to 7000 parts of urine. Ferro-granule of potassium, and acidulated brine in from 6000 to 7000 parts of urine. Potassium, mercuric iodide, picric acid and sodium, tungstate in 20,000 parts of urine. The picric acid test was discussed at length, and methods of avoiding error described.

Peptonuria received a passing notice.

PULMONARY SURGERY.

A review of the subject of the operative management of pulmonary cavities was discussed, and its proper scope defined. The recognition of pneumothorax was stated as being much simplified by using a silver dollar as a plexor and plegimeter, and then noting the clear metallic sound produced. This sign vanishes if an external fistula is produced, or the internal opening is closed.

Some personal views were expressed as to the diagnosis of friction. Over the pericardium, viz: (*a*) They were synchronous with the movements, rather than the sounds of the heart. (*b*) They were superficial sounds, often accompanied by a fremitus. (*c*) Change of posture induces an increase of murmur. (*d*) The alterations common to the walls of the heart in endocardial disease were absent. The above were usually noted, but especial importance was laid upon the location of maximum intensity of a murmur in pericarditis, which does not correspond with a valve point. The pericardial murmurs also change their focus of maximum intensity very often.

THERAPEUTICS.

In alluding to antipyrine it was described as undoubtedly efficient as an agent to reduce the temperature, which continued to fall for about six hours after the exhibition of one or two doses of antipyrine. The objection to its use was the profuse exhausting perspirations to which it gives rise, and it also produced a depressing effect upon the heart, though the latter is less than the depressant effect produced by others of the carbolic acid series. The usual dose employed by the speaker was ten grains as the strength of antipyrine, about twice that of quinine. Nitro-glycerine had been found valuable in lessening albuminuria associated with increased arterial tension, but its use must be watched, since it is possible that the reduction of arterial tension may be so great as to impair the cardiac power so essential to perfect circulation in renal processes; and thus albuminuria from feeble circulation would occur. Nitro-glycerine was also considered as very useful in renal asthma. Caffeine was a safe cardiac stimulant and diuretic. It was capable of increasing the force of the heart's action. One does not bring about a slowing of the pulse. The dose should range between 8–12 grains daily. A peculiar fanciful delirium like that produced by excessive amounts of belladonna, was described as an occasional symptom when caffeine had been used continuously; the mental equilibrium is speedily restored when the use of the drug is suspended. Reference was made to the use of hyoscine. It had been shown by Dr. H. C. Wood, of Philadelphia, to be a safe cerebral and spinal sedative. The dose was about $\frac{1}{100}$ of a grain. The virtues of cocaine were commented upon.

The address closed with some observations on dosage, and the possible effects of small doses long continued, especially when remedies had been used as alteratives or tonics.

DERMATITIS MEDICAMENTOSA—ERUPTIONS DUE TO THE INGESTION OF DRUGS,

Was the title of a paper by Arthur Van Harlingen, M. D., of Philadelphia, who said that most of our knowledge regarding the action of drugs upon the skin has been obtained during the past decade. It has been known for many years that iodine and bromine, with their compounds, will, in many persons, produce an eruption. But of late years, not only have new and severe eruptions due to these drugs been described, but eruptions due to various other drugs, as arsenic, belladonna, chloral, digitalis, iodoform, mercury, opium, quinine, salicylic acid, tar and its preparations, etc., have been observed.

Most of the eruptions due to drugs resemble erythema, urticaria, measles, scarlet fever, and other exanthemata. They are distinguished by some anomaly in their mode of onset, the parts attacked, etc, while, of course, the history of ingestion of any of these drugs aids the diagnosis greatly. Certain drugs produce purpuric eruptions, and iodine and bromine in addition to the well-known acne-form eruption, sometimes give

rise to confluent pustule-like eruptions of a threatening appearance, resembling the eruptions of syphilis.

Soaps, Especially Medicated, in Diseases of the Skin,

Was the title of a paper read by Dr. John V. Shoemaker, of Philadelphia.

The writer first discussed in his paper at some length the use of soap in health and disease, after which medicated soaps in disease were carefully considered. It was pointed out that both potash and soda soaps can be combined with various chemical substances to form medicated soaps, that may be either of the soft or hard variety. Soap so prepared was shown to be an easy and convenient vehicle for cutaneous application.

The value of potash soap medicated with tar, naphthol, carbolic acid, salicylic acid, sulphur, balsam of Peru, mercury, and other substances, was next cited. The writer finally added that soda soap, medicated, has even a more extensive use in the treatment of diseases of the skin than potash soap, into which certain drugs have been introduced. Soda soap can be medicated with a variety of substances that can also be conveniently and easily brought in contact with the diseased surface. It is not only a useful and cleanly vehicle for applying medicine, but it also rids the skin of all abnormal products, removes the epidermis in a mild way, exposing the sensitive skin, which is due to the action of the alkali and the drug or drugs in the combination. Soda, like potash soap, should always be employed on a diseased surface with precaution, especially in beginning its use, whether it be the ordinary or medicated variety. Its effect should always be tried on a small spot, and if acceptable, it can be used over the entire diseased surface. In some diseases a marked and beneficial effect will follow its application, and by its repeated employment it will readily be apparent how frequently it should be used. Sometimes medicated soap is well borne every day, or once or twice a week. Occasionally its use once in two or three weeks is sufficient, or only as the occasion may require for carrying off the epidermis, stimulating the skin, or for the removal of irritating secretions or crusts, scales or extraneous matter. Again, it may happen in some cutaneous diseases that medicated or any form of soap is not well borne, or is absolutely contra-indicated by the abnormal condition of the skin. Attention to the precautions already alluded to, together with a general clinical knowledge of what is suitable or unsuitable to use from the change in the skin, should serve as a sufficient guide as to whether medicated soap should or should not be employed.

A variety of medicinal substances and combinations have been tested by me in soda soap for some years, both in private practice and in dispensary and hospital service, with the effect of producing the following medicated soaps, which have been found advantageous to employ, and which are manufacutured by W. T. Baker & Co., of Philadelphia, and are now largely used in the Philadelphia Hospital for Skin Diseases. Each soap referred to is divided into pieces or cakes that have an average weight of three and a half ounces, or 1,680 grains, and in speaking of the different varieties I shall give the medicinal substances with which each soap is incorporated:

Alum Soap.—Sapo aluminis, 10 per cent., or 168 grains alum (potassæ aluminis).

Alum soap is most useful to apply in hyperidrosis and seborrhœa oleosa, or in excessive sudoriferous and sebaceous secretion. It checks or assists in relieving the discharge that occurs in these affections, and often brings the diseased surface into a condition suitable for other remedies. Many cases of pustular eczema, particularly in the subacute stage, are benefited by its use. It frees the surface of crusts and scales, and aids in lessening the formation of pus. It is very efficient in all such indolent conditions of the integument as occur in lupus, cancer, and in scrofulous and syphilitic skin affections. Alum soap has both a stimulating and astringent action on ulcers, and will be found particularly good for bed-sores and all weakened conditions of the skin that follow the effects of illness, or any irritation that may arise from friction, especially that which occurs in the folds of the skin of stout persons, by giving strength and vigor to the skin.

Arnica Soap.—Sapo arnicæ, 10 per cent., or 168 grains extracti arnicæ.

Arnica soap is very good to use in sore nipples, and in many inflammatory affections around the mucous outlets of the body. It is likewise serviceable in cleansing boils, carbuncles, and many of the pustular skin affections. The irritable and sensitive conditions of the skin that may exist during the course of these diseases are by its use frequently relieved. Arnica soap is also an excellent application for abrasions, wounds and bruises of the integument; the sorenes or pain, if present, is usually lessened or removed.

Boro-Glyceride Soap.–Sapo boro-glyceriti, 10 p.c., or 168 grains, 50 per cent solution boro-glyceride.

Boro-glyceride soap is very useful for its beneficial action on the skin, being preferable to either borax or boracic acid soap. It possesses antiseptic and deodorant properties, and is particularly applicable for the destruction of minute organisms. It is valuable for cleansing wounds, ulcers, suppurating, sloughing, or gangrenous surfaces, lessening inflammation, and preventing the action of atmospheric germs. General and local pruritic conditions of the skin, especially pruritus that frequently affects the genital organs and the anus, are usually benefited and often relieved by its use. It is a valuable soap to employ in acne and in seborrhœa, freeing the surface in the latter disease of crusts or scales that may exist, opening up the orifices of the sebaceous follicles, and lessening the accumulation of the abundant secretions. The roughened, reddened, and irritable state of the skin that is at times present in the latter disease and in acne rosacea, is often removed by the use of this soap, and it may give a clear and healthy complexion.

Camphor Soap.—Sapo camphoræ, 10 per cent., or 168 grains camphoræ.

Camphor soap has primarily a stimulant, and at times an irritant action, which is succeeded by an anodyne effect. It is most frequently used for the relief of pruritus that attends eczema, chilblains, and other irritable affections of the skin.

Carbolic Acid Soap.—Sapo acidi carbolici, 5 per cent., or 84 grains acidi carbolici.

Carbolic acid soap has at first a stimulant action, followed usually by an anæsthetic effect. It has been largely employed for its antiseptic action in wounds, and all suppurating sores; the accompanying itching of the skin is often allayed by employing it. It is excellent for chronic eczema, psoriasis, and many other cutaneous diseases; but on account of its unpleasant and penetrating odor, many persons prefer naphthol and salicylic acid soaps.

Chamomile Soap.—Sapo anthemidis, 10 per cent., or 168 grains extracti anthemidis.

Chamomile soap is a mild stimulant and astringent, possessing an agreeable aromatic odor, and being very acceptable to many inflammatory affections. It is an excellent soap to use in intertrigo or chafing, and in dermatitis, seborrhœa, hyperidrosis, and bromidrosis, while it is particularly valuable both for its medicinal virtues and aromatic odor in all conditions of excessive secretion and ill-smelling sores. It is frequently rendered more effective by the addition of sulphur, according to the following combination:

Chamomile and Sulphur Soap.—Sapo anthemidis sulphurisque, 10 per cent., or 168 grains extracti anthemidis, 5 per cent., or 84 grains sulphuris loti.

Chamomile and sulphur soap possesses the properties of both remedies in the combination. In seborrhœa sicca on any part of the body, but more particularly on the scalp or portions covered with hair, it has a most decided effect in carrying off the scales and crusts from the surface. Loss of hair, that so frequently occurs from dandruff or seborrhœa sicca, may be relieved or checked by the use of this soap. The greasy, shining complexion, attended with numerous small elevations or pimples, a form of acne common to young women from either gastric or menstrual disorders, often yields to applications of it, and it assists in restoring the skin to its healthy transparent state.

Eucalyptol Soap.—Sapo eucalyptoli, 5 per cent., or 84 minims ol. eucalypti.

Eucalyptol soap has not only stimulating and astringent, but also balsamic qualities. It is, therefore, a useful disinfectant application to all foul smelling wounds and ulcers. In bromidrosis or fetid perspiration it is very efficacious.

Naphthol Soap.—Sapo naphtholi, 5 per cent., or 84 grains naphtholi.

Naphthol soap is one of the most effective and practical of all the medicated soaps. It is useful in very many cutaneous diseases, and especially so on account of being free from odor and having stimulating, astringent, and some anæsthetic effect upon the skin. Animal parasites on the skin or in the clothes are usually destroyed by its application. Lousiness, particularly the variety that infects the pubic or axillary regions, can be easily, cleanly, and quickly destroyed by naphthol soap, superseding the filthy mercurial ointment. Scabies or itch is sometimes also eradicated by it, as it is a valuable adjuvant in assisting the action of other remedies. The bite and sting of many insects and animals may often be cured or relieved by its use. It often acts well in eczema, especially the subacute and chronic variety, adding much to lessen the infiltration and itching that may torment the patient. Psoriasis, pityriasis, and ichthyosis are often benefited by it. It has decided antiseptic properties, and is, therefore, of great utility in all offensive discharges from the skin. Fetid perspiration is not only controlled, but often cured by its use.

Salicylic Acid Soap.—Sapo acidi salicylici, 4 per cent., or 67½ grains acidi salicylici.

Salicylic acid soap is excellent for its antiseptic action, and is by far superior to carbolic acid soap. Its freedom from the irritating quality and disagreeable odor of the latter soap, makes it preferable to it in every way. It is an admirable soap for toilet purposes, and has proved serviceable in those thickened conditions of the epidermis that occur in the plantar, palmar, and extensor surfaces. It assists in softening up the epidermis, and in making the skin more natural and pliable. Sycosis and pustular eczema are generally benefited by its use, particularly when the hair becomes matted together, and is accompanied with a fetid odor. It is likewise serviceable in fetid perspiration and all foul-smelling wounds or sores.

Sublimate Soap.—Sapo hydrargyri chloridi corrosivi, 1 per cent., or 16⅘ grains hydrargyri chloridi corrosivi.

Sublimate, or mercury soap, is no doubt better known by the former term, as the latter has, in the minds of many for whom it may be necessary to prescribe it, a bad signification. It is like carbolic acid, naphthol, and salicylic acid soaps, a valuable antiseptic. In truth, it may be preferred by many who now regard the corrosive chloride of mercury a better antiseptic than those already named, and it can be advantageously employed in the same class of affections. Sublimate soap may, however, be objected to for fear of producing salivation; but the risk with so small a quantity of mercury in the soap is extremely slight, and to the present time I have never seen this effect follow its use. It is a valuable soap in animal parasitic diseases, such as phtheiriasis or lousiness, scabies or itch, and for destroying insects of all varieties that may infest the body. Freckles, pigmentary deposits, especially chloasma, or yellowish-brown or blackish patches on the skin, are greatly relieved and sometimes removed by its employment. The red and roughened state of the skin that may follow the eruptive fevers, as in small-pox, may be erased or improved by its use. It is an effective soap to assist in overcoming an unhealthy state of the skin, and in producing a clear and brilliant complexion. Sublimate soap is also one of the best agents to have recourse to in all kinds of itching of the integument, and may afford the greatest relief sometimes in both pruritus ani and pruritus pudendi. It is, likewise, a markedly serviceable remedy in the various syphilitic skin eruptions.

Tar Soap.—Sapo picis liquidæ, 10 per cent., or 168 grains picis liquidæ.

Tar soap has long been employed with great advantage in many forms of cutaneous disease. Eczema and psoriasis, more especially the chronic varieties, are frequently much improved by the use of tar soap. It assists in keeping the skin active, often lessens the infiltration and relieves the itching. It is a useful soap also to remove the scales in pityriasis and ichthyosis. Tar soap or any of its compounds can be

employed in many diseases of the skin that have been referred to in considering naphthol soap—the former being inferior to the latter on account of its disagreeable odor, and the irritant effects that sometimes follow the application of tar to the skin.

The principal medicinal combinations with potash and soda soap have now been fully considered, and it simply remains to briefly refer to the following additional medicated ammonia and soda soaps which have rather a limited use:

Amber Soap.—Eau de luce. A liquid soap which has, as its chief ingredients, tincture of oil of amber and balsam of Gilead, with water of ammonia.

Used in enlarged glands, moles, warts, etc.

Balsam Soap.—5 per cent., or 84 grains balsami Peruviani.

Used in indolent ulcers, sinuses, abscesses, etc.

Elder Flower Soap.—Sapo sambuci florum, 10 per cent., or 168 grains sambuci florum.

Used in intertrigo, rosacea, sunburn, etc.

Ergot Soap.—Sapo ergotæ, 10 per cent., or 168 grains ext. ergotæ.

Used in eczema, acne, rosacea, etc.

Glycerine Soap.—Sapo glycerini, 15 per cent., or 252 grains glycerini.

Used for roughness of the skin, chaps, pityriasis, etc.

Naphthol-Sulphur Soap.—Sapo naphtholi sulphurisque, 3 per cent., or 50⅘ grains naphtholi; 10 per cent., or 168 grains sulphuris loti.

Used in scabies (itch), phtheiriasis (lousiness), insects of all kinds on the skin, eczema, psoriasis, seborrhœa, hyperidrosis, bromidrosis, etc.

Sulphur Soap.—Sapo sulphuris, 10 per cent., or 168 grains sulphuris loti.

Used in acne, rosacea, etc.

Iodine Soap.—Sapo iodi, 3 per cent., or 50⅘ grains iodi resublimati.

Used in syphilitic and scrofulous skin affections, old granulations, etc.

Iodide of Sulphur Soap.—Sapo sulphuris iodidi, 3 per cent., sulphuris iodidi 50⅘ grains in a cake.

Used in acne indurata, chronic ulcers, freckles, yellowish-brown or blackish patches on the skin, etc.

Kino Soap.—Sapo kino, 10 per cent., or 168 grains ext. kino.

Used in eczema, rosacea, ulcers, etc.

Lead Soap.—Sapo plumbi, 3 per cent., or 50⅘ grains plumbi acetatis.

Used in boils, carbuncles, abrasions, bed-sores, etc.

Tannin Soap.—Sapo acidi tannici, 3 per cent., or 50⅘ grains acidi tannici.

Used in seborrhœa oleosa, excessive sweating, ulcers, granulations, etc.

Tannin-Balsam Soap.—Sapo tanno-balsamicus, 2 per cent., or 33⅓ grains acidi tannici; 5 per cent., or 80 grains balsami Peruviani.

Used in wounds, ulcers, chilblains, etc.

Thymol Soap.—Sapo thymoli, 3 per cent., or 50⅘ grains thymoli crystallisati.

Used in ulcers, wounds, abscesses, sinuses, pustular eczema, etc.

Turpentine Soap.—Sapo terebinthinæ compositus.

This soap has been known as Starkey's, and is composed of equal parts of potassium carbonate, oil of turpentine, and Venice turpentine.

Used in chilblains, syphilis, psoriasis, etc.

Wintergreen Soap.—Sapo gaultheriæ, 3 per cent., or 50⅘ grains acidi methylsalicylici.

Used in eczema, psoriasis, lichen, acne, etc.

Witch Hazel Soap.—Sapo hamamelidis, 10 per cent., or 168 grains ext. hamamelidis.

Used in fetid perspiration, eczema, loss of hair, etc.

Soap, especially the medicated, as has been shown, is very often a valuable agent in the treatment of the various diseases of the skin, provided it is properly and judiciously used. It is a powerful remedy to do good, and equally so to effect harmful results. The greatest care and the utmost precautions, as has already been pointed out, should always be exercised in applying it to a diseased surface, and too much must not be expected for soap to accomplish. The manufacturer, the merchant, and too often the physician, claim that this or that medicated soap will remove or cure certain skin diseases, which on trial will frequently be found to utterly fail. They may sometimes so act, but, as has been stated, the contrary is usually the experience Soap, therefore, as a remedy *per se*, seldom cures cutaneous affections, but as an adjuvant it is one of the most valuable agents that we possess. It is where too much has been hoped or expected from soap, either from hearsay knowledge, or from flaming advertisements that cause practitioners to try it, frequently alone, and being disappointed in the results, cast the soap aside, and lose what is often a most valuable adjuvant to other treatment.

Dr. Benjamin Lee read a paper entitled

"Nil Desperandum in Spinal Caries,"

Saying, there are two points that can never be too strongly insisted on in reference to the treatment of spinal caries or Pott's disease of the spine.

First. That it is *never too early* to begin with the employment of mechanical support of the most decided character; and second, that it is *never too late*.

First. It is never too early. The disease is a surgical one, and must be treated surgically. To tamper with it by attempting to treat it medically, by giving tonics and anodynes, is both a crime and a blunder; is as absurd as to try to treat a fracture of the thigh with Mrs. Winslow's soothing syrup.

The wearing of an artificial support, properly contrived, for a few months, can do the patient no harm if the spine is not diseased, but neglect on the part of the physician to advise a resort to this means of treatment when such disease is present, will lead to irreparable injury to the patient, and a loss of prestige to the physician himself. The story will be repeated from house to house, and from gossip to gossip, how Dr. Langsam allowed Mrs. Goodmother's daughter to go on for a year with spinal disease, and never found out what was the matter till she told him herself. It is perfectly easy to recognize the disease long before any deformity shows itself. The principal signs are: sudden attacks of cramping pains in the abdomen or sides, great stiffness on waking in the morning, and inability to stoop forward and touch the floor. There is not generally pain or tender-

ness in the back, and it is a great mistake to pronounce that there is nothing the matter with the spine because that symptom is absent. If the patient is able to walk, he will turn in one or both toes, and hold his shoulders back and up rigidly. If an infant, it will scream on being moved and lifted. The disease often follows an attack of whooping-cough, and can very often be traced to a fall or other injury. Secondly. It is *never too late* to begin with the use of mechanical supports.

It is the greatest possible error to suppose that strength is needed on the part of the patient in order to bear the application of a surgical appliance.

When the vital energies are slowly wasting away in consequence of a local source of irritation, the mechanical support is the plug which stops the leak. Without this, internal medication is as vain as the labors of the fifty daughters of King Danaus, condemned to expiate the awful crime of murdering their husbands on their nuptial night, by filling eternally with water a vessel full of holes.

The following case amply illustrates the truth which the author wished to convey.

S. R. J., a boy of six years old, was first seen by Dr. Lee, January 7th, 1884. He was suffering from spinal disease in the vertebræ of the neck, following whooping-cough two years before. The only treatment had been homœopathic globules given for supposed rheumatism. He was completely paralyzed from head to foot, was wasted almost to a skeleton, had racking cough, breathed with great difficulty, and had so rapid a pulse that it could scarcely be counted. He screamed with agony on the slightest movement, and every touch gave him pain. The application of the brace was a task of great difficulty on account of this extreme sensitiveness, but when it was once on, he experienced an immediate sense of relief. One week later he was eating and sleeping well, and could move the first two fingers of the right hand, and the little finger of the left hand. At the end of the second week he could move his toes, and put his hands above his head.

In three weeks more he had slight motion of the left leg. Two months from the time of the application of the support—which he wore night and day—he could hold up his head; and in three months more could walk alone.

Notwithstanding the formation of a large abscess in the neck, he has continued to improve in every respect up to the present time, and there is every reason to anticipate his entire recovery. This was simply one of the many cases which the doctor could cite to prove the truth of his second proposition, but one example would suffice.

Osteotomy for the Correction of Deformities of the Lower Extremities,

was the title of a paper by Dr. H. R. Wharton, of Philadelphia.

Under the general remarks upon osteotomy, attention is directed to the two methods employed, the linear and cuneiform operation; and the preference is given to the former, where possible, as it consists in a simple section of the bone, and practically constitutes a subcutaneous operation, whereas the cuneiform operation, in which a wedge of bone is removed, necessitates an open wound with its attending dangers.

The use of the osteotome, or the saw, rests with the choice of individual operators. The importance of making a full correction at the time of operation is insisted upon, especially if a fixed dressing be afterwards employed.

Among the causes which produce deformities for which osteotomy may be required are those arising from rachitis, from coxalgia, from badly united fracture, or from unreduced dislocation, and of all these the vast majority of cases requiring operation are due to the first-named cause.

For the correction of angular deformities at the hip joint, resulting from coxalgia, Gant's modification of Adams' operation is preferred, that is, a section of the femur just below the lesser trochanter.

This operation is preferred, because a section of the bone at this point secures its division at a locality where its structure is comparatively healthy; whereas, its division through the diseased structures of the neck, if it still exists, is capable of renewing an active inflammation in tissues which are most susceptible to inflammatory accidents following traumatisms.

Also from the fact that shaft of the femur can no longer be influenced by the action of the psoas magnus and iliacus muscles, the chances of correcting deformity are less when the section is made at this situation.

Adams' saw has, in the author's experience, proved a most satisfactory instrument, although some operations speak with equal favor of the use of the osteotome in performingt hese sections.

The fact that no case has resulted fatally in a large number of cases in the author's experience, speaks well for the general safety of the operation. The results obtained, as regards the correction of the deformity, are most satisfactory. The various operations which have been devised for the correction of the deformity resulting from *genu valgum* are considered, and preference is given to MacEwen's operation. The ease of its performance—the fact that the section is made at some distance above the knee-joint, just above the epiphyseal line, so that the articular surfaces of the bone, and the ligaments can sustain no injury, and the satisfactory results as regards the correction of the deformity, are all circumstances which recommend it over the various other operations.

The various osteotomies for the deformity resulting from *anchylosis of the knee joint* are considered, and that devised by Mr. Borwell, a linear section of the femur just above the knee-joint combined with a setion of the tibia through its tubercle, has been found most efficient in correcting the deformity.

In *genu varum* a linear section of the tibia, fibula and femur with an osteotome at the point of greatest curvature, has been found a safe and efficient means of correcting the deformity.

In *tibial curves*, a linear osteotomy at the point of greatest curvature or in very aggravated cases, a number of linear osteotomies, or the removal of a wedge of bone may be required to produce the requisite straightening.

In employing the osteotome, the cutting edge of the instrument should be kept in such a position as to avoid injury to the subjacent structures.

The use of the plaster of Paris dressing to fix the parts after the operation, is strongly recommended.

Dr. W. D. Kearns, of Pittsburgh, read a paper on

"Improvement in Splints,"

Saying, my invention relates to an improvement in splints for fracture of the forearm or wrist, especially for that kind known as "Colles" fracture; and it consists in providing the splint with a peculiar retroflexion, for the purpose of giving greater ease to the patient, and efficiency in causing the parts to knit and heal in proper shape.

In experience I have found that in many, if not most cases of fracture of the forearm or wrist, the splints should be applied so that the metacarpal phalanges of the hand may be bent upward from the plane of the arm at an angle of about one hundred and twenty-two degrees; and that it should be left as free to move as possible. This is about the natural inclination of the human hand, or that in which the posterior muscular tendons are most completely relaxed; and the continued maintenance of this relaxation of the several tendons, fasciæ, and ligaments, is of paramount importance in the class of fractures above noted.

It is the purpose of my invention to secure these points of advantage, and especially to effect a ready and comfortable maintenance of the required muscular relaxation of the extensors and flexors to their insertion along the phalanges, and of the muscles and fasciæ of the hand and thumb.

As will be readily understood by one skilled in the art of surgery, it is the form and flexion of the dorsal splint which governs the position of the hand, and when the retroflexion is of the angle before noticed, the hand will naturally assume this normal and easy position.

The purpose of the immediate flexion of the dorsal splint is to permit the proper backward bend of the hand and consequent relaxation of the posterior muscular tendons, without any tension or pressure on the carpal bones.

My improved splints may be applied to the arm by bandaging or in any of the well-known methods, and with or without interosseous pads to control the displacing influence of the pronator quadratus and supinator longus, as may be convenient. If desirable, the dorsal splint may be terminated at or near the line, and the forepart of the fingers left unconfined.

The splints may be made of wood, hard rubber, tinned sheet-iron, zinc, or other suitable materials. Tin and zinc, though not always the best material, are, however, the most convenient, because of the ease with which they may be bent to fit the arm and hand of the patient, and the readiness with which they may be procured in case of emergency.

Having thus described my improvement so that others skilled in the art may manufacture and use it, what I claim is:

1. A dorsal splint for treating fracture of the forearm or wrist, having a suitable brachial surface retroflexed directly at the wrist without substantial depression at that point, to extend over the metacarpal dorsal surface of the hand, at a retroflexed angle from the forearm, substantially as described.

2. A palmar splint for treating fracture of the forearm or wrist, having a suitable brachial surface retroflexed beyond the flexors of the thumb and bent downward at or near the middle joint of the digital phalanges, substantially as described.

3. The combination of a dorsal splint for treating fractures of the forearm or wrist, having a suitable brachial surface retroflexed directly at the wrist without substantial depression at that point to extend over the metacarpal dorsal surface of the hand at a retroflexed angle from the forearm, with a palmar splint made the substantial counterpart of the said dorsal splint, and provided with a retroflexed support for the palmar surface of the hand, substantially as described.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended May 23, 1885.

Mead, F. W., passed assistant surgeon. Detailed as member of Board for physical examination of candidates for appointment as cadets in the Revenue Marine Service, May 18, 1885.

Personal.

—Dr. T. Hewson Bradford will be the resident physician at the Beach House, Sea Girt, N. J., for the season of 1885.

OBITUARY NOTICES.

WILLIAM E. ROGERS, M. D.

At his residence in Memphis, Tenn., on May 21, Dr. Wm. E. Rogers, in the 59th year of his age. Dr. Rogers was a graduate of Jefferson Medical College, and was not only a prominent physician, but also a surgeon of acknowledged skill and eminence. He was the founder of the "Memphis Hospital Medical College," of which he was the Professor of Surgery and Dean of the Faculty at the time of his death.

J. M. B., M. D.

QUERIES AND REPLIES.

Dr. J. G. Cunningham, of Kittanning, Pa., asks our readers if they can give the name and address of the author of the following formula for gastric vertigo, which he clipped from some medical journal some years since:

℞. Argenti oxidi,	gr. ¼
Pulv. capsici,	gr. ¼
Extract colocynth co.,	gr. j.
Pulv. camphoræ,	gr. ½

M. Ft. pil. No. 1.

S.—One pill after each meal.

—In the *Microscope*, May, 1885, L. G. Doane says: "Upon a slip of glass, put a drop of liquid auric chloride or argentic nitrate, with half a grain of metallic zinc in the auric chloride, and copper in the silver. A growth of exquisite gold and silver ferns will grow beneath the eye."

THE

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Original Department.

Lecture.

SANITARY IGNORANCE AMONG HIGH AND LOW.

BY ALBERT L. GIHON, A. M., M. D.,

Medical Director United States Navy, President of the American Academy of Medicine, Ex-President of the American Public Health Association, etc.

(*Concluded from page* 708.)

The city of Washington is fortunate in its natural sanitary advantages. Its admirable ground-plan, in which the defects of the rectangular system of streets are obviated by the broad intersecting avenues, secures a sweep of air from whatever compass-point it may blow. Its wide thoroughfares and open spaces make an aggregate area greater than that occupied by buildings. Its irregular contour-lines of elevation permit effective drainage. A hundred thousand shade trees bordering the smooth roadways, which are easily swept, control the chemistry of the atmosphere. The water supply is satisfactory, food is abundant, and the death-rate of its white population notably low. All this every citizen probably knows, and hence assumes there is nothing left to be done; but with all its boasted cleanliness, there are a thousand pest-holes in that fair city to become nests for the hatching of epidemic disease and foci for its radiation. A very casual observer can not fail to notice, even on thoroughfares daily traveled, shanties reared on piles surmounting stagnant pools, cellars never opened to light and air, heaps of decomposing refuse on neglected lots, sewer-inlets so habitually giving off offensive odors that one learns to instinctively avoid them by a détour. The only provision for the public health in the District of Columbia is in the form of a law establishing a Health Department, which is expected

1. To conduct the sanitary service, meaning thereby the policing and inspection of streets, alleys, lots, yards and houses.
2. To prevent the sale of unwholesome food.
3. To inspect all marine products.
4. To hinder the running at large of domestic animals.
5. To collect all garbage from dwellings.
6. To superintend the removal of night-soil and the collection and removal of dead animals.
7. To secure a full and correct record of vital statistics.

To provide for the sanitary service proper, six inspectors at a salary of $1200 per annum are allowed, but one of these is detailed for the medical control of houses in which infectious diseases, as diphtheria, scarlet fever and the like, occur, leaving only five for all other sanitary work over an area of three square miles of populous dwellings. The inspection of food in all this territory is intrusted to two men, who are expected to visit all the markets and provision stores, and arrest the exposure for sale as food of whatever may be unwholesome; while for the inspection of marine products, fish, oysters, clams, crabs, terrapin, and the sanitary care of fish-markets, wharves, and oyster-houses, there is but one. The prevention of the running at large of domestic animals is given in charge to a pound-master with four laborers; the collec-

tion of offal and dead animals is let out by contract; and the recording and tabulation of births, marriages and deaths, and the attendance of the sick poor, are the work of the health officer, with four clerical office assistants. For the salaries of health officer, inspectors and clerks, the munificent total of $17,000 is appropriated.

Civic organizations can scarcely be blamed for delay in recognizing health bureaus as an important and necessary part of their organization, since medical institutions have been tardy in elevating the Chair of Hygiene into a first place in their faculty. Pathology and its catenated Therapeutics, have till lately occupied the most prominent position, and even Physiology has been regarded as only introductory to the study of the phenomena of morbid action. At first a few schools established subordinate lectureships on Hygiene, frequently associated with Medical Jurisprudence, or some of the minor specialties. After awhile Hygiene appeared here and there as a distinct Chair, and now alone or allied with Physiology, it holds its proper rank in every medical college of standing—eighty of the 128 medical schools in the United States and Canada having such professorships. The science of Medicine to-day rests on the broad foundation of Biology. The scientific physician is the profound biologist. Disease is departure from health, and to prevent this departure becomes the first thought and highest aim of him who claims to be learned in Medicine. The mechanism of curative procedures comes into play, like the surgeon's knife, as the last resort. Shivered and splintered spars have to be repaired by cunning workmen—but the skilful navigator is prouder of having weathered the rock and ridden out the gale without them.

In every city, town and village, in every State government, and in the national establishment, there should be, and some day will be, a bureau entrusted with the care of the public health—and this not a mere titular office, but an elaborately organized department, under a sanitary chief, who shall not have one aid but many—health officers, sanitary inspectors, or whatever they may be called—competent, zealous, and properly remunerated. Their labors will be onerous, but their duties are honorable; their mission the glorious one of saving and prolonging life, of going about doing only good works, and thus adding to the sum of human happiness and social order. They must be authorized to enter every house, however exalted its owner's station, to examine its drainage and sewage system, its garrets and out-of-the-way closets, its cellars, yards and surroundings. They must have power to open every apartment and subterranean basement to the light and air—to drain them if wet, to clear out rubbage, remove soggy and rotten floors, and moldy straw, whitewash walls, cart away the accumulated heaps from obscure alleys and neglected lots, and superintend the sweeping of the streets. Even in Washington, where machines can do this latter work, the perfunctory methods of other cities are coming into vogue, though not as in Philadelphia, where, as I said upon another occasion, "living dirt envelops the whole city with its slimy mantle, and the patriot pilgrim to the shrine of Independence doubts which is the greater marvel—the spot where a great nation was born, or the pestiferous mud he has waded through to reach it." "In the very heart of that city—rather in its head—under the shadow of the Temple of Liberty, where the brightest minds among its fathers and sons daily win forensic laurels, one has to pick one's way through reeking pools of fetid ooze concealing the cobblestones, until partially swept into stinking masses by decrepit laborers with unwieldy brooms—little heaps of filth that lie till they roll back to a level, or are carried into the sewer to fester underground, and generate the sickening odor that arises from every street inlet. It is the fashion to ridicule the unprogessive Spaniard who, at the gates of Madrid, ploughs the field with a crooked stick, as his ancestors did centuries ago; yet here intelligent men daily witness this farce of street-cleaning, this tragedy of street-pollution at their very doors, and hold their peace—each hoping to escape, yet escaping only as he who has trodden blindfold over red-hot plough-shares." Great as the sanitary officer's task at the outset, fines and penalties would defray its cost, which is a proper burthen on neglectful owners. A moderate outlay would afterwards suffice, though the sanitary overseer's duty will be one of ceaseless watchfulness. It is not enough for him to be an occasional visitor; he must be ubiquitous and all-seeing—in school-rooms, churches, theatres, and public halls; in court-rooms, railway stations and market-places; in dairy, bakery, butcher's stall and grocer's store; in factories, shops and crowded tenements; in squatters' hovels and rich men's palaces; and without his certificate no building should be permitted to be sold or occupied.

Who so qualified to do this work as the educated physician? The sanitary field is legitimately his own. Three-fourths of the registered physicians in this city might be actively employed upon the exclusive work of keeping disease out, and leave scant occupation for the rest in combatting what had crept by in spite of them. There would be fewer prescriptions written, and the gaily-decorated apothecary shops would drive a more salutary and reputable,—if not so profitable a trade, in selling soaps and cosmetics, and *articles de luxe*, instead of the pills and potions, and other horrid farrago, on which, like rotten staves, the blind ignorantly lean and seek support.

In all this discursive talk in which I have indulged, I do not pretend to have told you anything you did not already know. I have only sought to impress upon you who are wise the sense of your responsibility for your neighbor's ignorance, as that affects the public weal for which we are all accountable. The story of pure air, and good food, and outdoor exercise, may be a trite tale; but what have you done to keep this air pure and this food free from adulteration? Doubtless you all devoutly go to church, and contribute liberally of your means to clothe the savage—perhaps the very race whom M. Hornaby described to us a few weeks ago, whose scant attire is a piece of bark; who are chaste and virtuous, though they know neither God nor priest; honest and upright, though they have no law; peaceable and happy, though they live ungoverned and uncontrolled; healthy and vigorous without drugs and doctors: sharing their island home with the ourang, their only neighbor, they, nevertheless, exhibit all the traits of the noblest humanity—their children obedient, their wives immaculate, woman respected as the peer and partner of man. Contrast these savages with the products of civilization. Uncleanness, disease and vice are unconcealed. In the foul suburbs of the poor, which the wealthy never enter, the rum-shops stand on all four corners of every block, while children cry and fight for food. The unclean beasts, who talk, kennel themselves in foul, stinking tenements, where crime, the incestuous offspring of disease and filth, does not even seek to clothe itself. In the shanty of the city, or the remote log cabin of the frontier, the grimy creatures, who disdain to recognize their ancestral kinship to the ape, live in greater squalor. Dr. Scott relates the case of a native of Missouri, who had not been wet all over since 1863, and, astonished at the fact, he made inquiry, and found that not one-third of the people bathed once a month, and that fifty per centum did not take a full bath from October to May. I am sure the figures are not exaggerated. Here then is a missionary field—to preach the gospel of cleanliness. You have only to look critically at the masses as you encounter them every day to detect the great unwashed. Can there be a more blessed charity than to enlighten them as to the beauty and grandeur of this human body, and the necessity of grooming it into suppleness, cleanliness and strength? Can physicians confer a greater boon upon humanity than by becoming the leaders in such a propaganda? Let them fearlessly proclaim as the cardinal doctrines of their own faith, that health is strength, health is true nobility, health is happiness, health alone is wealth.

If medical men have not been regarded as health protectors as well as health restorers, it is because they have too tacitly acquiesced in the general belief that the latter is their only function, and they have consequently deserved the imputation of rejoicing in the outbreak of an epidemic or the occurrence of a sickly season for the greater harvest of fees it would bring. Undoubtedly the practitioner of medicine must gain a livelihood, and if his income is to be determined by the number and severity of his cases, it would be unfair to censure him for welcoming the summons to the bedside of a victim of typhoid, or the stealthy visit of one cursed by some constitutional taint; but what physician, who regards medicine as something more than a trade, does not feel sad at heart to know how easy it were to have averted the fever or the poisoned blood? Is it not a cruel necessity that compels him to take the fee from the half-starved sufferer, who ought to keep it to buy bread for herself and the famished children whose very eyes cry hunger? Is it right that in this Christian land the young graduate must himself look for means of living to those who come to him because he is cheaper than the doctor whose sign is weatherbeaten or has given place to the more aristocratic door-plate? Is it right that the poor can only look for succor to that skill which they can buy?

What is right?

The public health should be the paramount question of social polity. Individuals should be educated from childhood to the knowledge of the importance and dignity of their bodies,

and the necessity of keeping them sound, as well for their own greater personal benefit and pleasure, as that the descendants they leave may be worthy of them. The men who have made the intimate structure of their bodies and the laws of life their life-long study and vocation, should be the ministers of health, looked to for advice, and properly rewarded for their services. The stipend of the family physician should not depend upon the accidents of disease, but he should be the paid sanitary adviser and counsellor of the household, earning his salary when they are well, as when they are ill. A corps of well-renumerated sanitary officials should guard the avenues by which disease can enter, and hospitals, asylums, infirmaries, dispensaries and cliniques, should be multiplied for the poor, and supported by the churches in common, as the mission work that will bring most gladness to the earth, for disease is the parent of crime, as it is itself the child of the unclean.

Is all that Utopian?

This at least is hideous truth. The child, who loses its life from a preventable disease, is murdered by its indifferent parents. The unhealthy school-house is a living charnel. The advent of an epidemic is a crime chargeable upon the citizen who has neglected to urge with all his might the sanitary precautions that would have kept it away. Ignorance of the law does not protect its criminal violation: why should ignorance of sanitary laws be any less reprehensible?

COMMUNICATIONS.

DISEASES OF THE SKIN OF REFLEX NERVOUS CAUSATION.*

BY WM. T. CORLETT, M. D., L. R. C. P. LOND.,

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However important we may regard the nervous element in the evolution of skin diseases, two distinct varieties of *neuroses cutaneæ* present themselves to the clinical observer.

One is a

SENSO-NEUROSIS,

in which the characteristic feature is a disturbance of cutaneous sensation, unaccompanied by any visible lesion. Impressions made on the peripheral nerves are transferred ere they reach the sensorium commune, and are recognized as coming from parts more or less distant from their actual source. Transference of impressions is not limited to diseases of the skin, neither is it always pathological; clinical experience has taught the surgeon to seek at the hip-joint for the source of the pain which the patient refers to the knee; he sounds for stone in the bladder when the pain is in the glans penis; in like manner, if any part of the respiratory tract be irritated, the sensation will be referred to the larynx.

The second variety is a

TROPHO-NEUROSIS,

which is characterized by anomalies of nutrition. As subdivisions this includes anomalies of secretion and pigmentation. Like the first, this variety is sometimes physiological, but it differs from it in that the incoördination affects the vaso-motor or trophic, instead of the sensory nerves. In this, impressions made on the sensory cells of the cerebro-spinal ganglia are transferred to the motor or vaso-motor cells, and finally reappear at the periphery as muscular contractions or trophic changes. The impression which was received from the larynx straightway passed from the sensory to the motor cells, which in turn gave rise to momentary muscular contractions—a cough.

Impressions are transferred more readily from cell to cell when the latter are in a state of exhaustion; thus a sudden and unexpected noise, a flash of light, will call out motor and vaso-motor action—a shock, a blanched cheek—in one laboring under nervous debility.

Neuroses of the skin are met with in such neurasthenic persons, either when they are suffering from pathological changes in the viscera or when the viscera are undergoing physiological evolutions—as pregnancy—thus becoming remote foci of irritation.

Pruritus is a representative senso-neurosis, and as a disease *sui generis* and not a mere accompaniment of cutaneous inflammation, may be brought on by irritating afferent nerves in distant parts of the body; generally, too, we can point out the offending member by the character and location of the pruritus.

After a study of several years on this subject, let me summarize the conclusions drawn therefrom as follows: Pruritus of the palms and soles is usually met with in females having some mild ailment of the uterus of long standing. Pruritus of the scalp, at times accompanied by a sense of weight, is met with most frequently in women with a subinvoluted uterus or with a ruptured perineum. Pruritus vulvæ, unaccompanied by

*Read before the Ohio State Medical Society at Dayton, June 6, 1885.

vaginal discharge, is a common symptom of pregnancy; less frequently it precedes each menstrual flow. In the male the most troublesome pruritus occurs in the genito-anal region, usually in adults subject to constipation; in two cases helminthiasis was thought to be the exciting cause. It is often difficult to diagnosticate this affection from eczema on account of the delicate skin of the parts. When I first encountered this disease I called it eczema, and thought it due to blood stasis, as one so often sees on legs with varicose veins, but I do not now so regard it: because it seldom accompanies hemorrhoids; because it first appears as a pruritus, and later, when lesions of the skin appear, they are the outcome of vigorous and oft-repeated scratching; because other anomalies of nerve influence at times accompany or alternate with that of sensation; and because it is frequently limited to one-half of the body. The points herein given may be readily exemplified in the cases which follow.

Case 1. C. B., male, aged 44. Married, a salesman who holds a responsible position, he takes but little out-of-door exercise, and has not taken a vacation for years. He is of a neurasthenic type, has been habitually constipated for several years, and during the last three has been afflicted with furunculosis. Six months ago (Aug. '83) pruritus of the scrotum first appeared. He said at night, after going to bed, the right side of the scrotum and adjacent surface of the thigh would transpire so freely that the bed-clothing would be perceptibly moistened thereby; in a few minutes this would be superseded by itching so intense that sleep was impossible for several hours. For a time there was no tendency to dermatitis, and the nail-marks of these nightly invasions healed kindly. When I saw the case it appeared to be eczema marginatum with considerable induration. I did not recognize its neurotic nature until I saw that the sweating preceded each application of a strong solution of caustic potash, which preceding applications had taught him to dread. With a few weeks' treatment the dermatitis disappeared, but the pruritus remained until free daily evacuations from the bowels were established. The questions which naturally arose were these: Was not the exciting cause the presence of effete products in the blood which acted on the sensorial ganglia? If so, why should it select the ganglion presiding over this particular region? Or was it impacted fæces which irritated the afferent nerves, they acting reflexly on the skin? The latter I think the true explanation, and the class represented in the next case tends to confirm this view.

Case 2. D. C., male, aged 30, a carpenter, of neurasthenic temperament, had suffered the three years last past from a severe pruritus of the genito-anal region, which he supposed to be "itching piles." Paroxysms of itching would set in every evening at 4 o'clock, and continue with but few and short intermissions until 3 in the morning. The suffering was so great that he threatened self-destruction if he could not find relief. An examination as to the cause of the itching left little doubt that helminthiasis had much to do with it, as thread-worms were found in abundance. Suffice it to say, that the pruritus disappeared with the disappearance of the ascari, and in my opinion it was due to radiated sensation from an irritated colon.

Case 3. Mrs. R., aged 38, complained of being very nervous, also of an eruption on her scalp, which had existed two years. My diagnosis was eczema capitis, and I prescribed accordingly. At the end of a week I saw her again, when the eruption was much better, but the pruritis had not abated correspondingly, as three deep nail marks attested. At the end of a fortnight the lesions had disappeared, but the pruritus remained; local measures were employed for this without avail. Upon inquiry the patient said that during each pregnancy she had suffered from pruritus vulvæ.

Dr. M. Rosenwasser, to whom I am indebted for the case, said the only pathological state he had discovered was a subinvoluted uterus. The case is still under observation.

Case 4. C. J. H., male, aged 30, holds an important mercantile position which confines him within doors; he is an excessive smoker, and says he is very nervous. He consulted me for troublesome itching, which had existed in the same position on the left side of the perineum for two years; there was but little accompanying dermatitis. The feature I wish to bring out in the history of this case is this: the patient had been troubled with constipation since he took to office work, five years ago, and since the pruritus appeared he noticed it was influenced by the condition of his bowels. When they were free the pruritus disappeared, and the more constipated he was, the more severe the itching.

Three months' treatment, consisting of a slight change in the routine of his daily life, with tonic laxatives, has given him complete relief for one year up to the present writing.

The remaining cases are tropho-neuroses.

Case 5. Sarah B., aged 17, unmarried, apparently in good health, barring an eczema of the

lower extremities, and irregular menstruation; the former had existed two years, the menstruation had never occurred with regularity, but at periods varying from three to six weeks. The special feature of the case is that the eruption rapidly subsided just before each menstruation, and regained its former severity about a week afterwards. This peculiarity was first noticed by the patient soon after the eruption appeared, and I had the opportunity to verify it while she was under treatment. I was not permitted, however, to investigate to any great extent as to the cause of the irregular menstruation, and she passed out of sight only partially relieved.

About three years after this I saw her again. She said the eruption had troubled her until a year ago, when, without treatment, it left her. Upon further inquiry, I found this corresponded in time to her marriage. She had a child two months old.

Case 6. Mrs. L., aged 59, a widow, had a vesicular eruption appearing, not unlike hydroa, on the back of the right hand, and radial side of the middle finger of the left.

The family history is unimportant, save in the fact that a sister of the patient is insane. Her previous condition had been free from bodily ills, except the "whites," which came at the age of 40. At the climacteric change, which took place at 54, the eruption first appeared, and maintained the same character and occupied the same positions to the end. In brief, four months' treatment availed nothing, until she obtained relief from a retro-flexed uterus with endometritis, when the eruption subsided under the same treatment which before had been unavailing.

To conclude. The most marked tropho-neuroses coming under my own observation have closely simulated eczema; but, unlike eczema, the eruption, whether papular, vesicular, or squamous, remains as such throughout its entire course.

Derangements of the sebaceous glands have been previously spoken of in this connection;* Next to the eczematous group, they are the most frequent.

Senso-neuroses are, *cæteris paribus*, more frequently associated with conditions of a mild nature—functional disturbances, nerve irritation, and the like—whereas tropho-neuroses, *cæteris paribus*, more frequently accompany pathological conditions of a graver import, *e. g.*, nerve-lesions, or gross destructive changes in the cerebro-spinal substance; although we must admit that the latter also are not infrequently due to functional disturbances alone.

*Columbus Medical Journal for October, 1883.

SPONGE-GRAFTING.

What Becomes of the Sponge?

BY JOHN C. COTTON, A. M., M. D.,
Of Meadville, Pa.

Among the discoveries in modern surgery, grafting deservedly occupies a place of eminence. So much can be accomplished that was impossible before its adoption, and results are so much more satisfactory, that grafting, in some form, must continue to be an approved procedure in plastic surgery.

Sponge-grafting, discovered by Dr. D. J. Hamilton, and introduced to the notice of the profession in a paper published in the *Edinburgh Medical Journal* for December, 1881, as a substitute, in a measure, for skin-grafting, has many advantages over the latter procedure. Among others, the most important, probably, is that in anoplastic surgery it accomplishes what skin-grafting does not, namely, builds up or reproduces lost subcutaneous tissue, both muscular and cellular.

How this is accomplished has heretofore been a matter in controversy, there being a wide divergence of opinion in reference to it by surgeons, both in this country and Europe, who have had successful experience in the use of sponge-grafts.

By some it is claimed that the sponge, after forming a temporary trellis or support for the new granulations, when they are able to support themselves becomes digested and absorbed. By others, it is maintained that the sponge itself becomes organized and forms a constituent of the new growth. Still others contend that the sponge simply affords a proper covering for the new granulations, and by its presence stimulates their growth; and when this is accomplished, it is thrown off as effete matter.

Dr. Norman Porritt, who reported the first case of sponge-grafting in the *Edinburgh Medical Journal*, May, 1882, after the original report of its discovery in the same journal in the previous December says: "The sponge, since the last note, has been dragged more deeply into the wound cavity," and in the final note on the case, remarks, "the whole of the sponge, with the exception of very small particles, has disappeared."

In a recent letter from Dr. David Prince, of Jacksonville, Ill., who has had considerable experience in sponge-grafting, and is decided in his approval of it, he claims "that the sponge finally disappears, after having been inclosed in the new-

formed tissue by such a digestive process as catgut and silk undergo closed in a wound as sutures."

This opinion is endorsed, as far as the sponge being inclosed is concerned, by D. W. Perkins' case in an article in the *British Medical Journal* for January, 1883, in which he reports a successful case, and declares that "the sponge seems to be completely organized."

The theory of inclosure of the sponge is controverted by Dr. W. Winslow Hall, in the *Medical Times and Gazette*, in the spring of 1882, where, in reporting a case of indolent ulcer of the foot, he says: "As the case wore on it became evident that the sponge tissue was not becoming incorporated in the patient's foot. It rose by degrees in the wound, and fragments were clipped away from its surface."

To contribute something to the solution of this problem, a series of observations was instituted, the results of which will be given in this paper, as also somewhat of the literature of the subject. A brief account of the method of preparing the sponge and applying it, is also here inserted for the benefit of those who may not have given the matter special study.

This method, although differing in minor details, according to the notions of different surgeons, yet in the main features is essentially the same. It is as follows: The best Turkish sponge is selected, which must be thoroughly beaten, then immersed for four or five days in a 20 per cent. solution of muriatic acid. At the expiration of that time it is carefully washed in some alkaline solution, to neutralize the acid and free it from calcareous and silicious substances, when it is soft as velvet. One drachm of iodoform is then added to an ounce of sulphuric ether, the sponge immersed in this solution in an air-tight vessel for a couple of days, when the ether is permitted to evaporate, and the sponge is thus thoroughly impregnated with iodoform. It is then cut into thin slices or shavings, across the grain, about one line in thickness, with strong, sharp scissors. The grafts are now ready for use, but they can be preserved in this form indefinitely in an antiseptic solution, such as listerine, or a 10 per cent. solution of carbolic acid.

The mode of applying it is as follows: Shavings of sponge are packed in the wound or sore, first gently scraping the bottom of the cavity till it bleeds; the grafts are then covered with mosquito-netting, over which is placed absorbent cotton, and the whole enveloped in oil silk, which is secured in position by a common roller bandage. This dressing is not disturbed for a week by some, in two or three days by others, when, if successfully planted, the sponge will be found firmly adherent to the sore. Some difficulty has been experienced from the accumulation of fetid pus in the meshes of the sponge, which cannot be cleansed without disturbing the tender granulations. The iodoform with which the sponge is at first impregnated, for a time will relieve this difficulty, but in a few days other means must be resorted to. It will not do to rely on a continued use of iodoform, except in chronic cases or indolent ulcers, in a patient much reduced, as it is too stimulating, and results in a fungous growth. A 20 per cent. carbolic acid solution or a saturated solution of boric acid, will meet every indication, and not interfere with the reparative process.

The literature of this subject is not voluminous. The first paper announcing its discovery, as previously stated, appeared in December, 1881. The second paper on the subject was by Dr. Porritt, above referred to. He reports the case of a burn on the cheek of an anemic boy, æt. 14, the sore being four inches long and two wide. For the first two weeks poultices and carbolic oil were applied. At the end of that time, pale granulations were observed at the bottom of the cavity, which was one-third of an inch in depth. Into this cavity sponge, prepared according to the method above described, was accurately placed, filling it somewhat above the surrounding surface. The patient was discharged from the hospital in a little over four months cured.

The next case of successful sponge-grafting that was found was by Dr. Hall, also above referred to. The patient, a pale, wasted girl, æt. 20, had indolent ulcers on the dorsum of the foot, the largest being three inches in circumference, and quite deep. This was also packed full of medicated sponge, and after treatment continuing through three and a half months, she was discharged with little or no deformity, and with a pliable cicatrix, while in other and smaller ulcers, that in former years had been entrusted to nature to effect a cure, the result was cicatrices firmly adherent to the underlying bone.

In an address on "Some Observations on Sponge-grafting," delivered before the Tri-State Medical Society at its session in Indianapolis, September 9, 1883, and published in the *Weekly Medical Review*, St. Louis, Dr. Edward Borck details three cases which occurred in his dispensary practice, which were as follows:

1. A case where an adult male had indolent ulcers on his legs for eleven years.

2. A female who suffered from syphilitic infection, where the whole left gluteal muscle was eaten out.

3. Where almost the whole of the integument was torn from the dorsum of the hand.

The results in all these cases were most satisfactory. In the case of the female, the doctor says "the whole gluteal muscle was reproduced, with strong skin covering."

In addition to the above, the following references to some of the earlier papers on the subject were furnished me by John S. Billings, M. D., Surgeon U. S. Army, and Librarian Surgeon-General's office:

Burnett (J.), "Sponge-Grafting; a Successful Case," *Med. Record*, New York, 1882, xxii., 500.

Estes (W. L.), "Sponge-Grafting," *Med. News*, Philadelphia, 1882, xli., 590–592.

Sanctuary (T.), "Three Successful Cases of Sponge-Grafting, with Remarks," *Brit. Med. Jour.*, London, 1882, ii., 1202.

Franks (K.) and Abraham (P. S.), "So-called Sponge-Grafting," *Jour. Anat. and Phys.*, London, 1882–3, xvii., 349¼.

Whitman (R.), "Sponge-Grafting," *Medical Record*, New York, 1882, xxii., 402–404.

June 12, 1884, I commenced the treatment of a case of indolent ulcer on the leg, of twenty years' standing, the history of which is as follows: Mrs. F., æt. 49, married for many years, without issue, has been addicted to the opium habit for twenty-five years, consuming in later years an average of an ounce of the gum every week. She is anæmic and much debilitated; her mind, also, either sympathizing with her general weakness, or as a result of the protracted use of the narcotic, is decidedly childlike. There is an ulcer three inches in circumference and one-third of an inch in depth, situated on the anterior surface of the leg, midway between the ankle and knee. There is an apparently marked contraction in the whole circumference of the leg involving the sore of about four inches in length, the leg being enormously swollen above and below this circular band.

Six years ago I attempted to cure this ulcer and one on the other leg also, with nitrate of silver and carbolic acid, topically, giving support by stearine bandages, with generous diet and quinine and iron internally. After a constant and painstaking effort of six months' duration, I only partially succeeded, one ulcer healing with a hard, contracted cicatrix, while the other remained open. The ulcer, June 12, is discharging profusely a fetid, unhealthy pus; the granulations on the margins are pale and weak, the whole case being most unpromising; so that if ultimate success is not obtained, it would not argue strongly against sponge-grafting.

Charcoal poultices were at once applied with carbolic acid solution, 1 to 40, as a wash, while the sponge was being prepared. Cod-liver oil, quinine, and pepsin, were prescribed internally.

June 18. Medicated sponge was applied, at which time the discharge of pus was somewhat diminished and, of course, the odor less offensive. The sponge, according to directions, was covered with mosquito netting, the principal advantage of which is, as is supposed, to prevent the overlying absorbent from adhering to the sponge and being dragged in dressing, and so disturbing the tender granulations.

June 20. Removed the bandage and changed the cotton. The discharge was profuse, but without odor.

22. Changed external dressing as at last visit. The discharges now becoming somewhat offensive, I saturated the fresh cotton with the same solution of carbolic acid, cut an opening in upper border of oil silk, and poured acid solution in upon the grafts. Elevated the lower border of dressing slightly, and found margin brighter and more healthy.

24. Six days after planting the graft, removed all the dressing down to sponge, and, instead of finding a putrid mass of detached, black sponge, as under the unfavorable circumstances at the beginning I had reason to apprehend, was pleased to find the sponge adherent, with a tint decidedly pink over more than half the surface. The general condition of the patient was but little improved, however, with no appetite.

28. One-half of the sponge was more decidedly red, the balance not looking quite so well, pus more offensive, still no appetite.

30. Found upper half with decidedly reddish hue, sponge deep and firm, the lower half not so red, with a tendency to rise in the wound; tongue some better. Continue cod-liver oil, quinine, and pepsin.

July 2. Granulations entirely through upper half of surface, with sponge imbedded and disappearing, lower half looking somewhat better; tongue decidedly improved.

5. Appearances not so favorable; pus offensive, sponge darker where visible, granulations not so bright; condition attributed to over-exertion on the day previous.

8. Somewhat improved, upper half looking

well, on lower the sponge looks dark and puffing up. Am not certain whether granulations are pushing from beneath or not. Did not clip away the dead portion to ascertain the exact condition, as the determination had been made to reach the result without such interference.

10. But little change. Saturated sponge with a solution of half a drachm of iodoform in an ounce of alcohol, adding a small quantity of glycerine.

12. No odor, and but little discharge. Sponge texture not recognizable over upper half; the balance looked dead, dark, and dry. With a dull bistoury, the edge of this dark crust was loosened and elevated, and healthy granulations were found beneath.

16. Removed a portion of black crust, remains of sponge, and found it thin as paper. On raising it carefully, observed shreds, mere filaments, adhering by one end to the under surface, the other extending down into the new growth, evidently the undigested remains of the sponge-structure, which, being attached to the effete crust, was not digested as rapidly as that portion which was entirely enveloped by the new granulations.

18. One month after planting, a double pneumonia has supervened, and granulations that had afforded such satisfaction give signs of disorganization and sloughing.

23. Some improvement in general condition, also in appearance of sore. Removed balance of black crust without violence to granulations underneath. Irrigated the surface with a saturated solution of boric acid.

25. The strength considerably broken by pulmonary attack, no appetite, expectoration profuse; the sore, notwithstanding, continues to improve, all the sponge has now disappeared, and granulations fill the entire cavity.

Aug. 2. Patient attacked with a hemorrhage from the bowels, this followed by dysentery, then prevalent, threatening serious consequences. Pneumonia has almost entirely disappeared. The sore, however, looks remarkably well. An island of integument, as large as a nickel, has formed in the centre of the new growth, with a projection of same from the margin extending toward the former.

This is the last note made in this case, but in a few weeks following the integument extended over almost the entire surface, in spite of the untoward circumstances. The sore, however, never entirely healed, but during the fall and winter, under the combined effect of disease and opium, it gradually became indolent, the new structure by degrees broke down, and finally the patient was attacked once more with double pneumonia, to which she succumbed February 11, 1885.

It is believed that, without arrogance, the following deductions can be legitimately drawn from the history of the above case:

1. The sponge is not organized, but simply forms a support for the new granulations, which shoot up and interlock or coalesce through its meshes until they become sufficiently strong not to require an artificial prop, when it is digested.

2. The sponge sometimes does rise in the wound, but in such cases it is the result of accident, such as want of sustained, equable compression, etc. When perfectly successful, it should adhere to the base of the cavity and be completely enveloped in the new structure.

3. Epithelial cells are not always derived directly from an epithelial margin, but may be transmitted through a medium, probably pus.

Whether the sponge, after digestion, is absorbed or thrown off with purulent matter, or partly both, is left for future observers to determine.

In a second case, Mr. C., æt. 57, had a small indolent ulcer on skin, complicated with eczema, and large varicose ulcers of entire leg, which resisted the usual methods of treatment. The cavity was filled with medicated sponge, and in ten days the sponge was entirely covered with new tissue, and the wound healed rapidly.

In a third case, now under treatment, Mr. Henry, æt. 25, had his hand caught in an elevator in a grist-mill, the third finger torn off at knuckle, and a large portion of integument on dorsum of hand stripped off, which was found attached by only a shred. A portion of this flap, about one and a half inches square, sloughed deeply, leaving the extensor tendons almost bare. To prevent a contracted cicatrix from interfering with their use, the cavity was filled with prepared sponge, which adhered firmly, and gives promise of accomplishing all that was intended, by reproducing the lost subcutaneous tissue.

—An exchange says Koch's "comma bacillus" appears to be having a hard time of it among the experts. First, Dr. Klein showed his contempt of it by swallowing it, and now Dr. Lancaster has the unkindness to say: First, it is not comma-shaped; second, it is not a bacillus; third, it does not always occur in the intestines of cholera patients; and fourth, there is no good evidence that inoculation with it produces cholera. In fact, the poor thing appears to be about annihilated by its critics. Cholera, though, will remain undisturbed by it, and relentlessly claim its thousands of victims as heretofore.

Hospital Reports.

CLINICAL LECTURE ON CARDIAC DISEASE IN ADOLESENCE—ACUTE AND CHRONIC ENDOCARDITIS.

BY JOHN M. KEATING, M. D.,

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Reported by WILLIAM A. EDWARDS, M. D., Ass't. Dem. Clin. Med., University of Pennsylvania; Medical Registrar, Philadelphia Hospital.

GENTLEMEN: I cannot overestimate the importance of a careful and intelligent study of the diseases of the heart in early infancy and childhood; in children serious disease of the heart may be accompanied by extremely slight symptoms; for example, in a case that you may consider simple fever, rheumatic inflammation may attack the heart before any other signs of rheumatism have manifested themselves; hence, I would impress upon you the importance of resorting to auscultation in even the simplest cases of fever; particularly should this be your rule in the eruptive fevers, notably scarlatina, which, as you know, is such a prolific cause of disease in the central organ of the circulation.

West* tells us that in three cases of pericarditis, in ten of endocarditis, and in two where both peri- and endocarditis were associated, or in fifteen out of one hundred and twenty-two cases, the disease of the heart was traced to an attack of scarlet fever. The cardiac complication may arise at any period of an eruptive fever; but it is, perhaps, more usual to find the cardiac disease manifesting itself in the subacute stage; as, for instance, the symptoms may show themselves during convalescence from typhoid fever, or during the desquamative stage of morbilli or scarlatina. The circulating fluid appears to undergo some morbific change in these cases, that, if it is not the cause of, at least predisposes the endocardium to take on inflammatory action. As an obscure cause of acute heart disease, it is, perhaps, worth mentioning cardiac abnormalities or malformations.† If you should meet one of these cases, it is almost superfluous in me cautioning you to use no active treatment in handling the case, but to let your therapeusis be rather expectant than aggressive. A frequent cause of heart disease in your little patient is extension of inflammatory action from the pleura to the pericardium.

Careful auscultation of the young child is difficult indeed. The disease has already made him restless, which will be greatly increased by your manipulation. Your little patient cannot aid you at all in making up the diagnosis.

You must also know that you will meet a certain proportion of cases, the cause of which it will be impossible for you to discover. I should consider this to apply more to cases of endocarditis than to pericarditis, as the cause of the latter is perhaps more discernible.

Occasionally you will note heart disease following a traumatism of the chest.

Let me now present you this child, suffering with *Acute Endocarditis*. This disease may exist alone or in combination with pericarditis, when you must be on your guard that the latter does not mask the former. As West tells us, in one hundred and five cases, thirty will be masked by pericarditis, and in seventy-five the endocarditis will be uncomplicated.

Our patient, Willie W., æt. 13, complains of great uneasiness about the heart; the palpitation you can all notice, and if you will look carefully, you may note increased impulse, with irregular action; the respirations are short and quick; dyspnœa may deepen into orthopnœa. The temperature rises several degrees; at times a chill is observed. Pulse is frequent—130, 140, 160—with irregular rhythm, presenting intermissions and irregularities in the pulsations. The urine is slightly albuminous.

The symptoms may vary in degree. In some cases so urgent and severe are they that our best efforts and attention are required to bring the case to a successful termination; another case may be so slight as to almost elude our observation; hence in cases of acute rheumatism, you should practice careful daily auscultation, and even then, with all your care, a case may escape your notice and pass into the chronic stage of the disease; and then only will vulvular disease be recognized, when the symptoms make themselves known by the distress that they cause.

In acute endocarditis a murmur will be heard shortly after the symptoms of endocardial inflammation have arisen. The murmur may be either blowing, rough, soft, short or prolonged; at times you will hear a musical or metallic murmur. The site of the murmur depends of course upon the situation of the lesion; and on account of the great frequency of the lesions at the mitral valve the murmur is heard particularly at the apex.

In the fœtus, in whom the right heart acts more vigorously than the left, endocarditis affects the former more frequently. Rauchfuss* collected one hundred and ninety-two cases of endocarditis on the right side in the fœtus, and only fifteen cases on the left side.

In young children cardiac murmurs have a greater distribution than in adults; you will probably hear this bruit all over the præcordia, but its point of maximum intensity will be at the apex; the murmur will be systolic in time, synchronous with the apex beat and the carotid pulse, heard also in the axilla and at the point of the left scapula. This murmur would be known as mitral insufficiency or regurgitation.

Position may have some effect upon the murmur. Sidney Ringer, Hardy and Behier state that it is increased when the patient is sitting; Cuffer advances the opinion that it is intensified in the recumbent position. The murmur is probably made more distinct by causing the patient to lean forward, thus throwing the cardiac apparatus against the chest wall. The auscultatory signs of course differ as the endocardial inflammation is differently situated; as for instance if

*Diseases of Infancy and Childhood, sixth edition, 1874.

†Those of you who may desire more extended information on this subject, I would refer to the cases that Dr. T. B. Peacock has at various times presented to the London Pathological Society.

*Diseases of the Heart. Constantine Paul, 1884, p. 79.

the aortic orifice is attacked, the symptoms will differ to a remarkable degree, so also with the systemic symptoms.

If the vegetations are large enough, they will cause a narrowing of the aortic orifice, and the aortic obstructive murmur will be heard, purely systolic in time, rough and superficial, but little affected by change of the patient's position, heard plainest at the second costal cartilage to the right of the sternum, also in the carotid circulation in the neck.

Should the lesion have caused the valve to become insufficient or incompetent, the murmur again becomes different; its time is now diastolic, more apt to be soft and deep in tone; here position has some effect, as the standing posture enables the blood to flow more freely in its reversed direction, into the ventricle, thus making the murmur more plainly heard. In some of these cases it will not be necessary to even apply your ear to the chest; so loud are the murmurs that they may be heard with the ear removed from the præcordia.

Dr. Wm. Osler* has recorded a remarkable heart murmur in a little girl, which could be heard at quite a distance from the chest wall.

The case may go on to a generally weak and anæmic condition, will grow thinner, with increased cardiac palpitation becoming very distressing, emaciation progresses, cough arising, which will be frequent and short, with little expectoration. The heart's action is now apt to be violent and tumultuous, the case growing worse, emaciation increasing, cough more alarming, with blood-streaked sputa or even hæmoptysis, great distress or pain in the chest; anasarca supervenes in the extremities, increasing dyspnœa, and finally death. A post-mortem of little patient revealed the following condition: *Heart.*—Right side normal; left auricle, wall is rough from fibrinous deposits, mitral valve thickened, rough and covered with concretions; left ventricle, walls hypertrophied, cavity dilated, aortic valves slightly affected. *Liver*, large and pale. *Spleen*, enlarged and friable, capsule somewhat thickened. *Kidneys* healthy, but very anæmic, supra-renal capsules normal.

The mitral valve was somewhat corrugated, and had undergone slight adhesions to the adjacent tissue. The vegetations have been shown by Cornil and Ranvier to be due to a proliferation of the cells of the flattened layers, with infiltration of white blood globules, and a hyaline layer of fibrin. Klebs† and Osler‡ state that the vegetations generally contain micrococci, though it is in ulcerative endocarditis that these organisms play a more important role. Klebs (*Archiv. f. Experiment. Path.*, Bd. vi.) distinguishes two forms, one met in septic, and the other in rheumatic cases, and even the bacillus tuberculosis has been found in the vegetations on the valves in a case of phthisis.‖

A portion of the vegetations may be carried off into the general circulation, as an embolus. According to Sperling, the various organs will be affected in the following proportions:

Kidneys	57 times.
Spleen	39 "
Brain	15 "
Skin	14 "
Liver and intestines	1 "

It is also interesting to note the location of the endocarditis, as furnished by Sperling, in three hundred cases: Mitral valve, one hundred and twenty-five times; aortic valve, one hundred and twenty-nine times; tricuspid valves, twenty-nine times; pulmonary valve, three times.

Case 2. John ——, æt. 10 years. Patient has had chorea and frequent attacks of bronchitis. The apex beat is seen in sixth interspace on nipple line, it is displaced downward and to the left; loud systolic bruit is heard at apex, transmitted to point of left scapula. Much emaciated, expression anxious, and respiration quick, præcordia bulging. Complains of sick stomach. Feet commenced sweating about six weeks ago. Liver somewhat enlarged; ascites. Albuminuria is also present.

This case seems to illustrate *chronic* or *sclerotic endocarditis;* in these cases the right heart is affected most frequently in the fœtus, the mitral valve in early life, and the aortic in old age. The lesion is first one of hyperplasia of the connective tissue, forming an induration which causes atrophy in adjacent elements, the parts soon become retracted, and eventually undergo fibrinous or calcareous transformation; these calcareous vegetations may form a saw-like structure around the edge of the valve or higher, near the orifice.

Even in young children you may meet cases in which several murmurs are present; a case of a boy æt. 9, who was under our care some time ago, presented mitral regurgitation, aortic obstruction and regurgitation, presenting no normal heart sound whatever, as the mitral and aortic obstruction marked the first sound, as did the aortic regurgitant the second; so there were but the pulmonary and tricuspid elements of the normal sounds left, and these, as you know, are much less distinct than the sounds on the left side.

Your patient with chronic valvular disease is liable to many *secondary affections*, if the case runs a prolonged course.

Pulmonary congestion is a frequent cause of alarm. In regard to it Gendrin* says the pulmonary congestion and hæmorrhage are manifested during the first period of diseases of the heart; i. e., in that period of the disease during which the organism has not suffered any great deterioration from the prolonged functional disorder, either of the heart or lungs. These congestive phenomena are found to develop especially in those young subjects who have not yet suffered from anasarca, and still maintain a healthy color of the skin.

The liver may be affected; its first secondary lesion is hyperæmia; soon blood stasis occurs in the organ; it increases in size, as we saw in Case 2; its capsule is stretched. The biliary secretion is not as much impaired as you would suppose, but the mucous secretion of the canals is increased,

*Med. Times and Gazette, 1880, p. 432.

†Rosenstein: Krankheiten des Herzens, p. 99. Leipzig, 1879.

‡Gulstonian Lectures on Malignant Endocarditis, 1885.

‖L'Abeille Médicale, No. 51, 1884. Cornil.

*Lecons sur les Maladies du Coeur, p. 217, 1842.

which may retard the passage of bile, and thus cause a slight jaundice. The gastro-intestinal canal also becomes congested, its secretion arrested, and its tissue infiltrated with serum; the mesentery is also congested, the lymphatic glands may enlarge, the spleen becomes increased in size, the pancreas infiltrated, and an ascitic effusion may arise in the abdomen, as we saw in the case of John ——.

You will readily understand that digestion and assimilation become difficult under these circumstances.

The œdema of the lower limbs which these cases often present, is due to the stasis in the vena cava, causing swelling of the lower extremities; albuminuria also lends its aid in rendering the œdema more marked.

The kidney is an organ prone to be secondarily affected. The "heart-kidney" is of quite frequent occurrence on the post-mortem table.

The nervous system also succumbs to the cardiac disorder; cephalalgia, insomnia, night-mare, or night horror, vertigo, and a dull, drowsy headache, indicating venous stasis, are among the most frequent affections referable to secondary involvement of this system.

The *prognosis* of heart disease in the young is perhaps better than in adult life. In some instances the disease will remain stationary; the discomfort and suffering will grow less as the child grows older. This, Dr. Latham suggests, is due to a certain *protective* power possibly inherent in the *growing* heart, whereby it can accommodate its form and manner of increase to material accidents, and so repress and counteract their evil tendencies.

How often have we all heard a mother say that her child had out-grown its disease!

Again, you may find cases of heart disease in the adult that have existed from early infancy without causing any important disturbance at all.

The *treatment* of endocarditis is governed to a great extent by its cause, as you know it may be the first symptom of a rheumatic outbreak, or it may arise as a later symptom of rheumatism, scarlatina, variola, morbilli, diphtheria, erysipelas, or nephritis. The treatment must first be local: cover the pracordia with blister. Bouilland recommends the daily application of powdered digitalis leaves to the raw surface, thus keeping up the vesicant action.

Salicylic acid, or the salicylate of sodium or ammonia, can be cautiously exhibited; increasing the dose as beneficial action is observed, provided the pulse be not too frequent and the cardiac action not too violent or agitated.

The cardiac sedatives, aconite, veratrum viride, bromide of potash, and chloral, must be looked on as powerful drugs whose action will need careful and intelligent supervision.

The bromides in combination with small doses of chloral would probably meet the indications with the least possible danger.

Convallaria merits our consideration; it appears to regulate the action of the heart; this drug, however, is still on probation.

When you have somewhat controlled the cardiac manifestations, tonics are then indicated, more particularly iron in various combinations. Quinine is to be administered as soon as you discontinue the salicylic acid, and to be kept up for quite a time, even after all active symptoms have been abated.

Impending cardiac failure is to be met by cautious and judicious stimulation; digitalis, carbonate of ammonia, and camphor would all be indicated.

During convalescence, see to it that your patient is not subjected to a sudden cardiac strain in the performance of any action that will demand any circulatory effort; so select for your patients such an environment as will require of the heart the least expenditure of force. You should be particularly careful that the growing child is not constricted by clothing either around the neck, waist or limbs; the little girls should avoid compression of the chest or liver by corsets.

Salt air will be particularly beneficial to these patients. They should, if possible, pass their winters in a mild climate. They may live with benefit in moderately-elevated localities, provided of course that the patient be not necessitated to ascend and descend frequently.

Massage, in the direction of the venous circulation, is of great service as an accessory heart. It may also be employed to relieve œdema, more particularly of the lower limbs.

Medical Societies.

Obstetrical Society of Philadelphia.

(*Continued from page* 721.)

Ovarian Cystomata.

Case 1. A lady 51 years of age. The sac was aspirated, and 37 pints of typical ovarian fluid removed in February. By May the cyst had refilled and the tumor was removed. The room was heated to 80°, and a steam atomizer nebulizing carbolized water was kept in constant action. Incision 5½ inches. Bleeding points secured before opening the peritoneal cavity. No adhesions. Pedicle dropped. The sutures of silver wire used in closing the abdominal wound were inserted in such a way that the peritoneal surfaces were apposed fully three-quarters of an inch below the incised edges. The dressing consisted of adhesive strips, antiseptic gauze, absorbent cotton, and a flannel binder over all. The convalescence was pyrexical, characterized by abrupt exacerbations on the seventh and thirteenth days. Sitting up on twenty-eighth day. Recovery good. The pyrexical convalescence I attribute to the use of carbolic acid and the heat exhaustion induced by the absurd custom of maintaining a close, moist, and overheated atmosphere during the operation.

Case 2. A lady aged 51. Menopause four years ago; noticed an abdominal tumor at the time of the change. This would diminish in size during the catamenia. The past two years the suffering has been great, and while the tumor is of medium size the disturbances of the digestive functions are as great as those encountered in enormously developed cysts. Sleep for the past few months has been seriously interrupted. In

January, 1884, her health not admitting surgical procedure, and in consequence of fever and pain in the sac, aggravated by the least movement, and indicating an acute inflammatory condition, I aspirated, with the view of removing what I believed to be the determining cause of the inflammatory attack, over-distension, and also to prevent additional adhesions from forming, I withdrew eighteen pints of a dark chocolate-colored fluid, which was typically ovarian, but contained a large amount of cholesterine. The result of the aspiration was everything to be desired. The pyrexia promptly disappeared, sleep was secured, the digestive function restored, and a rapid gain of strength established. By April the sac was so filled as to again occasion constitutional disturbance, and ovariotomy was performed. This time I abandoned entirely carbolic acid and the overheated, moist, and offensive atmosphere. Strict cleanliness was observed, and corrosive sublimate used, with the atomizer remote from the patient. The temperature remained as nearly as possible at 70°. In an omental adhesion was found a large artery, which was the chief source of blood-supply to the cyst-wall. The pedicle was found to be a tendonous-like structure. The sac was almost universally adherent in the pelvic cavity, and adhesions were especially strong over the broad ligament and fundus uteri. These were so developed that it was considered by a gentleman present an impossibility to effect removal. In dealing with this complication, the fundus uteri was delivered of its thickened peritoneal covering, and the parenchyma exposed. This was the source of hemorrhage, which was stopped by dissecting up flaps on the anterior and posterior aspects, and bringing them together over the bleeding surface, and securing with six interrupted silk sutures. After removal of the sac and the introduction of the abdominal sutures, and just as I was about to close the wound, there welled up blood. The cavity was quickly re-opened, and the bleeding surface discovered after lengthening the incision to a point above the umbilicus, and well down over the pelvis. The hemorrhage originated in the separated folds of the broad ligament, and was only stopped after numerous silk ligatures had been applied; between fifty and sixty were required within the pelvis and abdominal cavities before bleeding was well controlled. Failing to secure a bleeding point in a pocket, Monsel's solution was applied. The operation occupied two hours and thirty-five minutes. One and a half pounds of ether were consumed. The temperature of the patient after the operation was over, was 94⅗°, and attention is here called to a point which is, *the determination of the degree of depression of temperature to which it is safe to subject a person during a surgical procedure.* In ovariotomy, where the securement of bleeding areas is an essential to success, the import of this bleeding can easily be appreciated; and if a definite knowledge can be established there will not be fatal cases due to septic complications, the direct result of oozing that might be prevented. Reaction was prompt. Dressing as before. Tympanites developed during the next twelve hours, and to a degree that jeopardized life. This was overcome with the faradic current, anti-ferments, and the rectal tube. There was no pyrexical complication, and recovery was without further untoward symptom.

Case 3. A young married lady, æt. 25, suffered from an ovarian tumor, which developed within a period of nine months. The cool room, absence of carbolic acid, and strict cleanliness, characterized the conditions of the operation. Corrosive sublimate was the antiseptic employed. The operation was uncomplicated, and recovery was prompt.

Dr. Goodell complimented Dr. Beates on the case requiring so many ligatures, as nothing is so demoralizing as free hemorrhage, as a complication in abdominal surgery. He criticised the ¾-inch application of peritoneal surfaces, as it is likely to fold into the wound when closing it and cause faulty union. He inquired about Dr. Beates' experience as to hernia after abdominal section. He doubted the necessity of the rule to avoid section of the recti muscles. If in inserting stitches in closing the wound good coaptation of the muscles be secured, hernia would probably be less likely to happen. He prefers silk sutures to metal ones for closing the abdominal wound as they may all be inserted, and sponges used to catch any bleeding before any of them are closed.

Dr. Montgomery remarked that some operator (name forgotten) had proposed section through the recti muscles for the express purpose of securing good coaptation and sound union. He has tried this method, and has had good results and no hernia.

Dr. Parish has used sutures through the recti muscles, and has had good results and no hernia. He uses silk, and has not been troubled with suppuration along the suture tracks.

The President thinks that if an operator once uses silk sutures he will not again use silver wire. In the case he reported this evening, the incision was necessarily through a recti muscle. He had perfect union and no suppuration.

Dr. Beates had never had a hernia resulting from abdominal section. In the second case, violent retching and vomiting caused him great anxiety, but the sutures held firmly and union was firm throughout. In the second and third cases, silk sutures were used, but pus was formed in their tracks in six or seven days.

Dr. Goodell exhibited specimens of

Papillary Ovarian Cysts,

removed from three women, with the following history: The first one had been removed on March 29, at the University Hospital, from a woman who had borne two children by her first husband, but had not conceived since her second marriage, seven years ago. The cyst was of the right ovary, weighed about twenty pounds, and its lower portion had to be enucleated from the broad ligament which overlapped it. It had burst a few hours before the operation, and the abdomen was filled with dark, syrupy fluid. The special point of interest was the papillary growths found in large numbers, both on the inside and the outside of the cyst wall. The broad ligament and pelvic peritoneum was also studded with them, and the left ovary, otherwise healthy, was so bound down and enveloped with them as to make its removal impossible. The woman's convalescence was un-

interrupted, yet Dr. Goodell could not but believe in the malignancy of the cyst, and he was disposed to attribute the diffused patches of papillomata to infection from some previous rupture of the cyst wall, of which, however, there was no history.

The next two cases were operated on at his private hospital on the same day, April 12, and both did well. In each one both ovaries were affected with intra-extra-mural papillary growths, while in one of them the right cyst had evidently burst some weeks previously, as the abdomen contained a dirty fluid, and apart from the history of sudden abdominal pain the ovary was represented by a mass of papillomata about the size of one's fist, around the base of which were the remains of the cyst wall. These two cases he deemed benign because there seemed to be no infection outside of the ovary. They were probably cases in which the cystic degeneration began at the hilus of the ovary.

President remarked that these growths were found in almost all small ovarian cysts, especially when they were enveloped in the broad ligament. They are not malignant, but are of very rapid growth, and are accompanied by pain and local congestion.

Dr. Parish in one of his patients had found an ovarian tumor as large as a man's head. The other ovary was the size of a hen's egg, and its walls had undergone calcareous degeneration; the pedicle was short and calcareous suppuration followed its removal, and a fistulous opening was left, probably depending on the presence of the calcareous matter.

Dr. Goodell also exhibited a calculus weighing over one and a half ounces, which he had removed a week ago. The lady was seventy-four years old, and was also aphasic and paralyzed from a stroke of apoplexy received five years previously. Ether was therefore given with extreme caution, and fortunately no bad results followed its use. Finding the stone to be a very large one, Dr. Goodell decided not to crush it, but to remove it by lithotomy. This was accordingly done, but a good deal of difficulty was experienced in coaxing the stone through the opening. On account of the cystitis present, the opening into the bladder was left unclosed, except at three points, where sutures were introduced merely to stop troublesome hemorrhage. The relief was immediate and the convalescence uninterrupted.

On the Use of Obstetrical Forceps as a Speculum and Protector to the Vagina in Operations upon the Fœtus in Utero, by Drs. Jos. Price and G. G. Faught,

read by Dr. Beates.

Even a casual observance of the records of gynecology shows them to be scored over and over again with cases, the sad history of which is the result of the reckless and unintelligent use of the obstetric forceps. The late Dr. John S. Parry gives the mortality of ovariotomy as 37½ per cent. According to Dr. D. H. Agnew, *Surgery, Vol. 2, page 821*, "a fatality quite as great as that resulting from Cæsarian Section." As a careful perusal of the writings of Schroeder, Tait and others shows how often this operation, when styled "unsuccessfully done," is followed by genital fistulæ, extensive sloughing and cicatricial tissue we have good reason to believe that mutilations and contusions of the soft parts are no mean factors in accounting for the heavy mortality. Foreign reports indicate that the mortality is much greater abroad than in this city. A late Irish obstetrician reports six consecutive deaths after craniotomy. Though the conventionalities and artificial modes of living in the large cities of America might necessitate the more frequent performance of serious operations in child-birth, the more successful results must be attributed to the generally conservative teachings of our schools with reference to manipulations in deformed pelves. It is to be regretted that exceptions to such teaching exist. A celebrated New York teacher, who boasts "three thousand cases and a year at Vienna," records one of his cases in which the cephalotribe slipped eight times, the operation being completed with a blunt hook. Cases are known in which the cervix has been entirely cut away, and in which in trephining the base of the child's skull the mother's sacrum has been sawn into. With such records before them, the writers feel that no apology is needed for presenting for the discussion of this Society a new and wise use for the forceps, as a protector of the soft parts, and for fixation of the head during operations upon the fœtus. A justly celebrated writer and teacher of this city, after the publication of a paper advocating this measure in the *Medical News*, *August* 2, 1884, called attention to the fact that the idea was not a new one, as shown by an extract from *Blundell's Principles and Practice of Obstetrics*, published in 1834. The writers are well aware that obstetrical works report cases in which the head was perforated after ineffectual traction had been made with the forceps, without recovering that instrument, and the delivery subsequently accomplished safely, *Hodge Syst. Obst., pages* 252, 272, etc. The use of these previously reported cases was however clearly accidental. Indeed, the profession seems to have lost sight of the fact that the primal use of the speculum was to enable the operator to use craniotomy instruments safely and expeditiously, Abulcaris so using it in the eleventh century (quoted by Schroeder). The design of this paper is to claim the *intentional* use of forceps as a protector of the soft parts of the mother, and for fixation of the head. The only previous intentional use of the forceps in such manner, known to the writers, was some years ago, by Dr. De Forest Willard, a member of this Society. In using the forceps after the manner referred to in the title, when the destruction of the fœtus is clearly indicated, a pair of forceps as wide in the blades as the diameter of the pelvis will permit, are applied in the ordinary way, and used for fixation and compression of the head, while the vault is being perforated and broken or folded up—the retraction of the tissues by the instrument allowing safe and expeditious work. If preferred by the operator, the blades may be separated to their respective sides of the pelvis and held by assistants, recrossing and locking them to make compression and traction. To represent the utility of the forceps under such circumstances we cite the following cases:

Case 1. M. B., æt. 21, primipara, pelvis of masculine type, child's head unusually ossified, and

its dimensions large, absolutely and relatively. When Dr. Price saw her, she had been in labor for a long period. As the pregnancy was illegitimate, she had attempted to conceal the fact that she was in labor. The child was dead; the hand was presenting at the vulvar orifice, which was very much swollen, and the woman's vital force was failing. The hand and arm were returned to the uterine cavity, and the head brought into position. As there was no expulsive effort whatever, the forceps were applied. Traction failed to engage the head. The safety of the mother demanded prompt removal of the child. Without removing the forceps, craniotomy was quickly performed after the method described, the mother's soft parts were entirely uninjured, and the woman made a prompt and satisfactary recovery. It seems hardly necessary to state that version was not attempted in this case, because it was believed that the safety of the mother would be greatly compromised by turning and dragging through contracted and inflamed tissues a large still child.

Case 2. Mrs. D., æt. 28, second labor. The first labor, two years previously, had been a protracted forceps delivery. The present labor was seen in consultation; it was a summit presentation, and various forceps had been already unsuccessfully appplied. A further attempt by Dr. Price was equally unsuccessful in causing the head to engage, its diameters being at least an inch greater than those of the pelvic outlet. The forceps being *in situ*, a large male fœtus was removed, after perforating and crushing the head. The patient's recovery was all that could be desired. She has since borne a normal child, the labor being easy.

Case 3. A. G., æt. 22, primipara, extreme angular curvature of the spine and pelvis much narrowed in the conjugate diameter. The head presented; the occiput was posterior and unengaged. Dr. Faught applied the Davis forceps, but was unable to change or engage the head. After a consultation with Drs. Hampton and Price, in which ovariotomy was decided upon, a pair of Hodge forceps were applied, the blades separated to their respective sides of the pelvis, and used as a speculum, etc., during the subsequent operative procedure. Except for a slight tear of the perineum, which afterwards healed perfectly without the use of stitches, made by the passage of the shoulders, the patient's recovery was uninterrupted and satisfactory. In this patient the undeveloped condition of the soft and the narrowness of the bony outlet would have rendered ovariotomy by the old method a hazardous operation.

Without wearying you by further statistics, we may say that similar successful results have been attained in all our other cases, numbering four. The Hodge and Davis forceps were used in five of the operations; in the last two a special forceps, designed by Dr. Price, and made for him by Mr. Kolbe, having the following peculiarities:

1. Thin flat blades, one and three-quarter inches wide, to allow easy application in markedly deformed pelves.

2. The Hodge angulation, for use at the superior strait.

3. The absence of fenestræ, to increase the strength of the blades for powerful compression and traction, and to afford more ample protection in operative procedure during perforation, etc.

4. A greater cephalic curve, so that the points come in apposition, to prevent slipping.

5. A screw at the end of the handles, to cause greater depression than could otherwise be exerted.

Dr. Beates also exhibited another pair of forceps designed by Dr. Price, one blade of which terminated in a thin, flat, sharp-pointed perforator. This was covered with a leather shield, to protect the soft parts during its introduction. This shield is not removed, but the perforator cuts through it when it is pressed firmly against the fœtal cranium. The other blades terminate in a blunt screw, which is intended to be screwed into the spinal canal of the child for traction.

Dr. W. H. Parish reported an

Alexander Operation.

In December, 1881, Dr. William Alexander, of the Liverpool Parish Infirmary, performed for the first time what is now known as the Alexander operation. His patient had a retro-flexed and prolapsed uterus and a cystocele. He effected a permanent replacement of the uterus, but did not get rid of the cystocele. In 1884, he published his book on "The Treatment of Backward Displacements of the Uterus, and of Prolapsus Uteri, by the New Methods of Shortening the Round Ligaments." He then reports twenty-two cases operated on by himself, and other cases operated on by other surgeons. The conditions warranting the operation—conditions which the operation is expected to relieve—are posterior displacements, retro-flexion or retro-version of the uterus. The operation is of little service in prolapse unaccompanied by either posterior displacement. It does not remedy a cystocele or a rectocele; neither does it take the place of an operation for remedying a laceration of a perineum. The operation, as recommended by Dr. Alexander, consists in making an incision down upon the external abdominal rings, finding and seizing the ends of the round ligaments, drawing them out until taut, the uterus being at the time held in a position of ante-version by means of a sound in its cavity. The ligaments are then stitched in their taut condition to the columns of the rings, and the uterus kept from dragging too greatly on the round ligaments during the subsequent two months, by means of a Hodge pessary, sometimes aided by a stem pessary. The abdominal incision heals generally by granulation, rarely by first intention. The relief of the uterus displacement in most of the cases reported, seemed permanent, or at least the displacement had not recovered up to date of publication. The operation is a bloodless one, or nearly so, the dangers are trifling, and the results in favorable cases were satisfactory in the hands of Dr. Alexander and other English operators. On December 30, 1884, I did the Alexander operation on a patient in the Philadelphia Hospital. Her general condition was not very favorable for any operation. She was about 40 years of age, of small stature and in a debilitated condition. She suffered with a chronic bronchitis, the uterus was in a condition of retroflexion and retro-version, and was also so prolapsed as to approach ordinarily the vaginal out-

let; and when engaged in severe labor protruded, according to the patient's statement; but the latter statement may have been erroneous, as there was a rectocele of about the size of a hen's egg. There was also an old laceration of the perineum, one that extended nearly into the rectum. I performed the Alexander operation because of the posterior displacement. I did not expect to remedy, except to limited extent, the prolapse of the uterus, or at all to get rid of the rectocele. I expected that a subsequent operation would be performed for the restoration of the perineum. After cutting down upon the right external ring, I found no difficulty in recognizing the terminal portion of the round ligament, or in causing it to run through the canal when drawn upon by the finger; it was about the size of a crow-quill, and did not suggest strength; it appeared in a condition of atrophy from the stretching to which it had long been subjected. The left ligament was also easily recognized, but it would not run through the canal. It could not be drawn out, and doubtless was adherent to the canal, and also held in the pelvis by abnormal adhesions dependent upon a pelvic cellulitis of old date. The right ligament was drawn out about two inches and cut off. The left one was shortened about half an inch. While the ligaments were being drawn out, the uterus was held entirely in the median line by means of a uterine sound. The sound ligaments were then stitched to the columns of the rings, and the abdominal incision closed with silver wire and covered with iodoform dry dressing. A Hodge pessary was introduced, and patient placed in bed in dorsal recumbency, with thigh flexed. The bronchitis was aggravated by the ether, and severe coughing became very troublesome. The concussion of the coughing would at times force out the pessary. The abdominal adhesions healed in about three days by granulation, after limited erysipelas had appeared. The erysipelas was not severe, and was probably dependent upon hospital influences. The posterior displacements were partially relieved, but I do not think the benefit secured to the patient amounted to a great deal. I have seen but one other Alexander operation reported in this country. I think the value of the operation should be tested. I am not enthusiastic in its favor, but am willing to give it a trial. Certainly it is not difficult; perhaps the chief difficulty consists in recognizing the round ligaments, but they are more easily found in the living than in the cadaver. There is no danger of hemorrhage, and apparently no danger of traumautic peritonitis. Probably the only source of danger is from septic infection, and this, under favorable surroundings, could scarcely occur.

The president thinks that the operation will find many cases in which it will be valuable, for instance, cases of retro-flexion without adhesions, and in which the pessary will get into the angle of the flexion and lose its usefulness, and in which a stem will not say. It will be less dangerous than Tait's plan of laparotomy and stitching the uterus to the abdominal wound.

Dr. Parrish remarked that Dr. Alexander recommended that both round ligaments should be drawn out before either of them were stitched. He recommends it for such cases as the president describes, but does not limit its usefulness to such. He also thinks it will prove a valuable auxiliary previous to operations for the cure of rectocele, cystocele, and lacerated perineum.

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Editorial Department.

Periscope.

Treatment of Defective Teeth During Pregnancy.

Dr. C. A. Marvin thus writes in the *Independent Practitioner*, March, 1885:

It may cause a smile of incredulity when I say that the answer not infrequently given to the question embodied in the title of this paper is: "Treat them, as at any other time, with care and thoroughness."

"With care," certainly; "as at any other time," by no means.

I fancy many a dentist can recall instances where the unusual nervousness of a lady patient, under operations not at all formidable nor apparently severe, has surprised and, perhaps, annoyed him exceedingly. Operations, which before had been borne without a murmur, now cause intense suffering, and the ordinarily quiet, self-possessed patient, whom it was easy and pleasant to work for, has become transformed into a restless sufferer, whose outcries and contortions make a strain upon his sympathies, as well as his patience, almost too severe for him to bear.

If this experience occur to him early in his professional life, he finds it puzzling in the extreme. Unable to account for the extraordinary sensitiveness of teeth which he had operated on at other times without difficulty, he concludes, perhaps, that it is all a whim, that his patient is foolishly timid, has lost her self-control, and is making unnecessary trouble. The result of such a conclusion is not favorable to gentleness of speech or of digital exercise. Now, it may be that great injustice is done to the patient by such a conclusion, and that an injury is inflicted as well upon the dentist's reputation. His power of judgment may suffer also, and hence a trinity of evil results proceed from an erroneous opinion.

An intimate knowledge of the lady's real condition of mind and body might reveal a state of things quite startling to the dentist. For instance, he might discover that her mind was entirely free from whims; that there was a resolution to endure, which, all things considered, was

simply heroic; that the tax and drain upon her nervous force were beyond all former measure; that the suffering she manifested was real and of a peculiar acuteness, too much for her quiet endurance, and only to be tolerated through sheer strength of will, never before required of her. While nature shrank, will persisted, and, in reality, the woman was more a heroine twice told than when on former occasions she sat patiently and uncomplainingly through long and complicated operations. Her nervous system was then in repose, it is now in a state of agitation; then she only suffered fatigue, now agony. She is really taxing herself to the utmost to bear, without resistance and without murmuring, the necessary operations. The struggle is terrible, and she will be wearied and limp for hours as a result. No word of harshness or impatience should add to her already heavy burden. She realizes, as no dentist can, what her conditions and her experiences are. She can hardly restrain the flood of her tears, both on account of the pain and of her inability to bear it. A woman has a pride of fortitude as well as of beauty, and when it succumbs one may be sure the power to which it bows has no merely imaginary existence. It is real.

If this be her condition, how cruel to add another sting in the form of a severe word or an impatient gesture! Now is the time for the dentist to exercise his magnetic force, if he has any, and, by the steady equipoise of his own nervous energy, influence his patient, gradually reducing her agitation to quietness, or strengthening her by that mysterious transmission of nervous force which, though inexplicable, has been too often realized to be discredited.

So will he be better able to do his work; so will his patient be better able to endure it; so will he learn to exercise an influence, to exert a power which will be of essential service to him all through his professional life; and so will he win the gratitude of the delicate, nervous lady under his hands, and gain a life-long advocate.

But what of this hypersensitive condition of the teeth? And this unusual nervousness of the lady? And the severe struggle which is going on within her, as has been described? What of it all? Why is it?

The patient has entered upon the period of pregnancy, and the period and the state are pregnant of peculiar experiences and phenomenal manifestations.

A wonderful work of nature is begun. It is the most important, the most trying, the most delicate that the human body is ever called on to undertake. A new living being is to be formed, carried, nourished, and finally born. In its miniature form it is still to be supplied with all the organs of the mature body—all delicate tissues, all the intricate machinery necessary for the reception and transmission of sensation, for the exercise of functions necessary to the maintenance of life, when that life and the responsibility of preserving it shall have become an independent obligation.

Now, however, this new life is dependent entirely upon the mother. From her it draws its nourishment, from her life its life is sustained, and, as may readily be inferred, the drain upon her is severe. Not alone must she supply the pabulum which the embryonic bony tissues require for their growing solidity, and the muscular tissues for their toughening and development, and the digestive apparatus for its appropriate qualifications for a specific duty, but also the circulatory and nervous systems for their ready action and faithful service. Her nature is tapped, so to speak, in every energy, that the new and dependent life which she carries and nourishes may be supplied. And there is no consideration for her moods or conditions in this new life. Its demands are exacting, imperious, unintermitted. Be she sick or well, cheerful or depressed, fresh or wearied, wakeful or drowsy, the drain is never relaxed, and disregard of its demands is impossible. Her fate is upon her; she can neither escape it nor overcome it. During all the period which nature has fixed for the completion of fœtal life, the mother is a slave to her unborn child.

Besides the draft upon the physical energies, there is another as constant and even more taxing, viz: the drain upon the nervous energy.

If there be a disturbance in any part of the body, notice of its existence and extent is immediately conveyed to the sentiency—the brain's vital tenant—by the alert nerve messengers, which are by no means mere instruments of transmission, or sentinels set to watch and report any damage sustained by any part, but are themselves prime sufferers, and send intelligence to headquarters of their own hurt, as well as of injury to their neighbors. Hence, the report is immediate and reliable. The disturbed part calls for relief, and keeps calling. The system of lines of communication is actively exercised, for the lines are kept busy. This order of affairs is universal and well understood.

Now, take the case we are considering, of the pregnant woman. That there is considerable of a disturbance in a very delicate portion of the body no one will question. And there is good reason for such disturbance. The presence of a mass of matter to which the organ is unaccustomed is no slight thing. It occupies space; it is constantly growing, and, as it grows, it encroaches more and more upon nerves, blood-vessels, adjacent organs, displacing, distending, disturbing and making the whole vicinity uncomfortable. Here is a tax upon the strength and the patience which must be experienced to be appreciated. Added to this is the constant feeling of solicitude lest harm should come, through accident, to the burdened woman; and, still further on, an intensity of solicitude, begotten of a new-born love for the living burden, lest harm should come to it, her forming child. What wonder that the woman is wearied with her burden, made uncomfortable, by the crowding of every adjacent part by the intruder, worn with constant anxiety? What wonder that the steady disturbance taxes and drains the nervous energy? What wonder if the equipoise of nervous and muscular and digestive systems is deranged or kept in so critical a situation that the slightest untoward influence will derange it?

And if deranged, and these connected systems, delicate each in itself, and composing a marvelously complex machine when united, are out of harmony, the one with the other, what a Pan-

dora's box of ills the pelvic region becomes, while an equally direful condition of things exists in the abdominal and thoracic regions! The avenues of communication with the brain are crowded with complaining suppliants, and the presiding genius is overwhelmed with appeals for help and cries of distress.

So then, this distressful condition of things must be averted, and not invited. And many a female comes into the dentist's hands at a crisis when these two alternatives present themselves for his consideration. If he be unwise in his decision and his manipulation, he invites the sad consequences before described; if he be wise and prudent, he may do much to avert them. A woman in pregnancy should be guarded carefully from disturbing occurrences or disturbing thoughts. Anxiety, apprehension—in a word, *worry*—should be kept from assailing her. Her own excited imagination will conjure up enough ills, without their phantom columns being reinforced by real evils. Keep the real ones away, and aid in dispelling the phantoms, if you would do a pregnant woman the greatest service.

Has not enough been said to indicate the kind of treatment the teeth of such a patient should receive at our hands? I will name it temporizing preventive treatment—treatment for the prevention of further damage for the time being. That is just it.

There are cavities possibly in such a mouth, which the dentist could fill permanently and without much pain. Whether it is wise or not to do so will depend largely upon the temperament of the patient. A phlegmatic individual might sit through the necesssary appointments and escape all harm, and be loudest in her persuasions to her shrinking sister of a nervous temperament to pluck up courage and do likewise.

Indeed, the hardships which some women will endure, even when in an advanced stage of pregnancy, and endure them day after day, are simply appalling. And in many such cases, also, the offspring does not seem to have been injuriously affected. The child is born in due time, is well formed, hardy, and perfect. That such instances are to be found does not weaken the argument before made that, during this period, women should be spared anxiety and nervous excitement. There is a wide difference between nervous excitement and physical or muscular weariness. The women who can bear the hardships without harm, are not the women who are easily susceptible to nervous disturbance. They are strong, hardy, unimaginative, self-reliant women. They may have strong passions, but are not nervous. Or, if they are to some degree susceptible to nervous disturbance, they can still incur muscular weariness without necessarily suffering nervous prostration or excitement. On the contrary, a moderate degree of physical exercise, even to the extent of slight fatigue, is doubtless beneficial both to the mother and her child. But if these same strong, hardy women *should* receive a nervous shock, or experience an over-drain on their nervous energy, the result would be disastrous. It is not easy to produce such a shock on such women; certainly not easy enough for the ordinary and even extraordinary events of common life to effect it. It is not that they are differently made, nor subject to different laws, nor unaffected by the same laws; it is simply harder to touch the key-board of their nervous mechanism. It is encased within non-conducting walls, and the person is, so to speak, iron clad.

Now, naval officers do not instruct their gunners to open fire upon an iron-clad vessel just because she is iron-clad, and can, perhaps, stand it without injury. So, unless some extraordinary reason exists for performing at once the dental operations required by such a patient, it seems higher wisdom to hold to the rule and do only temporary work. Cavities sufficiently prepared to receive and retain protecting gutta-percha fillings; gentle manipulation of the mouth through the whole sitting; avoidance of such methods, materials, appliances, as seriously irritate the nervous system; a pleasant and hopeful view of the case; an encouraging word as to the condition of the teeth, their safety for months to come, their reduced sensitiveness when ready for permanent fillings—all these details enter into the proper treatment of patient and teeth at such a period.

If it is an important condition of the most successful operations upon the teeth, that the patient—any patient—be in a quiet and equable frame of mind during their performance, as it most certainly is, then every consideration of welfare of patient, excellence of operation, and comfort of operator, would emphasize the propriety of performing only temporary dental operations for persons disqualified for preserving equability of mind and equipoise of nerve, by reason of a great demand made upon all their vital forces by nature.

It is the physician's duty to assist nature. It is the dentist's duty also. He can assist her, and he can incommode her. He can outrage her. He can mar, perhaps destroy, her beautiful designs. Neither is it necessary that it be his intention to do so. He can accomplish so evil a result as surely by ignorance, by thoughtlessness. Unwise operations during pregnancy may result in premature birth, or a weak, unbalanced, blighted child, peevish, morbidly timid, dyspeptic in earliest infancy, giving poor promise of brightness in time to come; and this fact is a severer burden upon the mother's heart and hands than even the growing child in fœtal life was to her weary body.

But some one may ask: "If these things are so, would it not be wisest of all to postpone any operation upon the teeth till after the period is over and the patient restored?" I answer, unfortunately, decay will not wait for you. It steadily progresses, and generally progresses more rapidly in such a period. There is a perceptible lowering of tone as well as quickening of sensibility in the dental tissue. The one condition invites attack, even advancing to meet it; the other reduces the ability to resist or endure its injury. So then, if the teeth are neglected there is great danger that some of them may be lost or seriously damaged by the delay. They must have attention, and the kind of attention advocated in this paper seems best calculated to insure the welfare of the teeth, as well as the welfare of the pregnant patient. For the teeth are specially sensitive; they are reduced in tone; there is a loss of vigor; an element of health is wanting; in a word, they are not as able to bear kindly thorough operations,

and escape the troop of ills that lie in wait for a weak tooth after it has undergone a severe operation.

Sensitiveness to cold, or, what is worse, hot drinks or air, soreness to the touch, elongation, looseness, death of the pulp, ulceration—you know them all, gentlemen; these all, in their order, are waiting to rush in and occupy the territory, if only they are given the opportunity. A good, healthy tooth defies them, when a weak one cannot successfully oppose their entrance. Now a defective tooth in the mouth of a pregnant woman of nervous temperament, is a delicate thing to handle if one would reap good results. Better a hundred times treat it delicately and temporarily than to take a risk so great. Both sides of the argument are in favor of this decision. A temporary filling will preserve the tooth as well as any other for the time being, and it cannot do any harm. Even if the tooth could be treated permanently without danger, no harm is done it by the temporary treatment. The tooth is saved, and can be permanently filled at a future time just as well as now; the patient is relieved both from anxiety and suffering, and everybody is happy.

But another point calls for consideration. Suppose such a patient has teeth with exposed pulps, or with dead and putrefying pulps, or has an alveolar abscess; how in such a case? In the first place, may a kind Providence spare every pregnant woman from such a sad experience. Secondly, if such cases must be, may the same kind Providence spare any of our patients from getting in such a condition. Thirdly, if this cannot be, take the case in hand and treat it as delicately as possible. Remedies for temporary relief are on the shelves of our medicine cases; use them. If unsuccessful, the best judgment must be exercised, and the two sides of the question carefully weighed. Which will be worse in its effect upon the patient; protracted suffering or such an operation as will be effectual? When consultation is had and a decision is reached, if accepted by the patient, let the dentist proceed to execute it calmly, cheerfully, and with a vivid sense of responsibility, regarding the necessity as not of his creation, and holding it to be his mission mercifully to relieve the sufferer thus thrust into his hands.

Such is wisdom; such is the dentist's duty; such responsibility must he take. In all such cases it is important that the dentist and the physician should consult freely, that the patient may receive the best services as the result of their combined wisdom.

I need only add that in order to make such consultations agreeable and profitable, it is necessary that dentists study carefully and become familiar with this department of physiology, that physicians who are supposed to be thoroughly versed therein may recognize and admit the wisdom of their suggestions, and no time be lost in the endeavor to create confidence or overcome opposition arising from an adverse judgment of the dentist's competency to give advice.

—A Cremation Society has been organized in Buffalo.

Treatment of Ulceration of the Bowels in Young Infants.

Dr. F. P. Atkinson thus writes in the *Practitioner*, April, 1885:

It cannot, I think, be questioned that speedier and more accurate information as regards the effect of remedies may often be gained from the study of chronic than of acute disease, inasmuch as the same symptoms are apt to recur again and again, and the same remedies can be put to oft-repeated tests. The following case, which I have ventured to report, has given me an amount of information it might otherwise have taken years to obtain, and possibly it may prove of service to others who have cases of a like nature under their care. According to the mother's statement the child in question had been given up by more than one physician, and I must say myself it was one of the worst cases I have ever seen recover. At the time the little one came under my charge she was two years and eight months old. She was a perfect skeleton and quite unable to sit up in the nurse's arms. She had a sallow waxy appearance, without a particle of color about her face except a slight hectic flush upon her cheeks. She was sick whenever she took food, which consisted entirely of milk and lime-water. The bowels were moved about every four hours and the smell was perfectly unbearable. The stools consisted almost entirely of slime and pus, streaked with blood, and adhering to the bottom of the chamber-vessel even when it was held upside down. The stomach was slightly distended and tender. The previous history was as follows:

She was always rather sick from birth, but was worse after she was one year old. Had an attack of diarrhœa at eight months, and the urine was discolored (so the nurse says) with blood. She has always been troubled with diarrhœa on and off since. The stools were at first very large in quantity, and semi-solid, but not slimy. When the diarrhœa was at its worst, the actions occurred about every two hours, but the usual number of times was about once every four hours. The stomach was always more or less tender and distended. At twelve months old, she had pains in the joints, and one knee had to be put up in a splint; both legs were much swollen. The father had had syphilis before his marriage, but was said to be perfectly well when this took place. The child was nursed for about four months, but occasionally had a bottle of Swiss milk, then on account of sickness was fed entirely on Swiss milk and Savory and Moore's food for infants till twelve months old, then all kinds of milk were tried, goat's, ass's, etc., and subsequently farinaceous food, with a little Brand's essence of beef. When I saw her she was taking cow's milk and lime-water, and this was in great measure brought up as soon as it was taken into the stomach.

The indications for treatment appeared to me to give a light and easily digestible food, moreover one which after digestion would leave as little waste material as possible, to soothe the irritation of the bowels, and to improve the condition of the blood. As a diet, therefore, I ordered two tablespoonfuls of whey, two tablespoonfuls of barley-water, and one tablespoonful of cream to be taken at each feeding, and in the course of

twenty-four hours I found she managed to dispose of half a pint of barley-water, half a pint of whey, a quarter of a pint of cream, together with, later on, one and a half ounces of milk. She also took in the twenty four hours the white of four eggs beaten up in water, four teaspoonfuls of Brand's liquid essence of beef, and two ounces of finely-minced raw meat. I ordered the body to to be thoroughly oiled night and morning, the loins and stomach to be kept warm with a flannel bandage, and the feet to be well wrapped up. In order to alter the character and frequency of the secretions, I gave three times daily a mixture consisting of the following: one minim of solution of potash; eight minims of castor oil; three-quarters of a minim of tincture of opium; twenty minims of syrup of ginger, and half a drachm of mucilage. Then when the pus and slime began to pass away, and the bowels appeared simply relaxed, I gave two grains of bicarbonate of soda; three grains of subcarbonate of bismuth; half a minim of tincture of opium; five minims of tincture of catechu; two minims of tincture of rhubarb; five minims of compound tincture of cardamoms, with a little syrup and mucilage every four hours. Next, in order to improve the condition of the blood as soon as the secretions began to improve, I ordered ten minims of the concentrated syrup of the lactophosphate of lime and iron to be given in water three times daily.

The child was ordered from the start to get plenty of fresh air provided it was dry, and the rooms in which the child lived and slept were requested to be kept quite dry, and at the same time thoroughly clean and ventilated. In the course of about one and a-half years the child under this treatment made a good recovery and was able to run about by herself and eat the same as any other child. The vomiting ceased almost entirely from the time that the milk was given up. Whenever the secretions became purulent and slimy, the castor oil and laudanum mixture was resorted to, and the carminative and astringent one when the bowels were simply a little relaxed. The castor oil and laudanum was successful in altering the character of the secretions not simply once or twice, but on several occasions, and I have applied it since in other cases with uniform success. As regards the lactophosphates, I cannot speak too highly of them in aiding the subsequent recovery.

The Treatment of Carbuncle Without Incision.

In the course of the paper on this subject before the American Medical Association, by Dr. L. Duncan Bulkley (*Med. News*, May 9, 1885), the author related the case of a gentleman, aged 56, large and florid, who suffered for several years with eczema of the left foot. He was also diabetic. Following upon this eruption was a large carbuncle. He applied to this tumor, thickly spread on the woolen side of lint, the following ointment:

℞.	Ergot. fl. ext.,	℥ ij
	Zinci oxidi,	℥ ss
	Unguent. aq. rosæ,	℥ ij. M.

Covering this was cotton-batting, to prevent blows or injury. He was given sulphite of calcium ¼ gr. every two hours, and occasionally the following:

℞.	Magnesiæ sulphat.,	℥ iv
	Ferri sulphat.,	℥ j
	Acid. sulphurici dil.,	♏ iij
	Syr. zingiber,	♏ j
	Aquæ,	ad. ℥ iij. M.

S.—Teaspoonful in water through a tube three times daily.

At bedtime Dover's powder was administered, to give rest when required. The result of the treatment was cessation of pain, rapid resolution, and a cure, except some induration, in eighteen days. The man continued at his work.

He summed up his paper as follows:

1. Avoid any irritation, as pressure, blows, etc.
2. Avoid warmth and moisture, as in poultices.
3. Avoid incisions.
4. Do not use stimulants.
5. Protect the inflamed parts with the ointment given above. The solid extract of ergot may be used if desired. Spread the ointment at least one-third inch thick.
6. Use sulphite of calcium every two hours for its effect upon suppuration.
7. Employ good, nutritious food, and fresh air.
8. A sedative, if desired, and occasionally the laxative and refrigerant tonic as above.

The advantages are:

1. Short time required for recovery.
2. Cessation of pain.
3. No scar.
4. No operation.
5. No detention from business.

Reviews and Book Notices.

BOOK NOTICES.

Mushrooms of America, Edible and Poisonous. Edited by Julius A. Palmer, Jr., Published by L. Prang & Co., Boston.

The mushroom is so delicious and wholesome a vegetable, and grows so abundantly without cultivation in most parts of the United States, that it is almost the duty of every one who lives in the country to acquaint himself with the differences between the edible and poisonous varieties. In no way can he do this so easily and certainly as in studying beautiful and accurately-colored plates, like these in this publication of the Messrs. Prang & Co. They are strictly true to nature, and are accompanied by a description in popular language, not only pointing out the distinction between the toxic and the non-toxic species, but giving the needed directions how to cook the latter, so that they will be most welcome to the table. Physicians, especially, should be well versed in this branch of study for the number of poisonous fungi in this country is considerable, and every summer we read of cases of poisoning, not unfrequently fatal.

THE

Medical and Surgical Reporter,

A WEEKLY JOURNAL,

ISSUED EVERY SATURDAY.

D. G. BRINTON, M. D.,
JOSEPH F. EDWARDS, M. D., } EDITORS.

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OF

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PARASITICIDES IN THE TREATMENT OF PULMONARY PHTHISIS.

Ever since the germ theory has been agitated, ever since the bacillus etiology of tuberculosis has been promulgated, practical every-day physicians have repeatedly queried whether this bacillus cannot be destroyed. They cannot see the practical utility of the discovery of the etiological factor, unless therapeutics keeps pace with it, and tells us how to combat it.

So far, in this respect, therapeutic progress has not been satisfactory.

In the *Brit. Med. Jour.*, May 23, Dr. John Edward Morgan, writing on this subject, tells us that in one of Dr. Hermann Weber's interesting Croonian Lectures on the hygienic and climatic treatment of chronic pulmonary phthisis, which have lately appeared in the *Journal*, he expresses hope that some means may eventually be discovered of destroying the bacillus and its spores, either in the air we breathe, or in our tissues, without injury to ourselves. Dr. Morgan has long thought that, if we are to contend successfully with phthisis, and set some limit to its diffusion, it is in the direction here indicated that our labors may most profitably be expended; for, as Dr. Weber further remarks, "when once the system is infected, we do not yet know of any parasite-killing remedies which, in effective doses, would not injure the host together with the parasite." The mischief, in fact, is then done; the fatal seed is sown, the bacilli are protected within the tissues and secretions of the lungs, and antiseptics are comparatively useless.

On this subject of disinfectants, in their varied bearings, much has been written of late years; some apparently coagulate albumen, others oxidize organic matter, while others, again, are fatal to the growth and increase of microzymes. Many of these substances have long been used in cases of sickness, and, in numerous instances, beneficial results have followed their adoption. But, though we are often told that antiseptic gases, sufficiently potent to destroy contagium, cannot be tolerated by the living tissues, we still know comparatively little regarding the amount of

rough usage the respiratory organs are capable of enduring, not only with impunity, but, in some cases, with apparent advantage. The information we possess on this subject is certainly scanty; still, certain facts have been recorded which tend to show that healthy lung-tissues may be beneficially influenced by the action of disinfectants, and, at times, seemingly protected from the inroads of bacilli. Whether, in such cases, these organs become so altered in their chemical composition or in their vital properties as no longer to prove a congenial soil for the growth of the parasites, or the bacilli and their spores are themselves destroyed, we have at present no means of deciding.

In confirmation of these remarks, he refers to what really may be looked upon as extended experiments on antiseptic remedies, continually and efficiently carried out in the north-western highlands and islands of Scotland. The great majority of the inhabitants of these districts unwittingly expose their lungs to an atmosphere largely charged with disinfecting fumes; thereby teaching us a useful lesson on the extraordinary tolerance of the respiratory organs to such sources of irritation. He briefly describes the mode of life of these highlanders, in so far as the construction and heating of their dwellings is concerned; as in this manner the singularly abnormal atmospheric conditions to which they are exposed may be most conveniently studied.

The houses to which he refers are known in the highlands as "bothies," and are the homes of the hardy crofters, to whose grievances public attention has of late been strongly directed. Many of them live under the same roof as their cattle, and in numerous instances the air of the dwelling reeks with the impure exhalations given off from the excretions of these joint inmates of the cabin. The primitive dwellings are warmed by a peat-fire, kept constantly burning in the centre of the floor. The luxury of a chimney is often altogether unknown. The smoke which rises from the combustion of this fuel, after thoroughly diffusing itself through every nook and corner of the building, makes its escape by a hole in a corner of the roof. Now, it may be asked, how is the health of these persons influenced by inhaling constantly, both by day and by night, such an atmosphere as this—an atmosphere so pungent that considerable irritation of the eyes and nostrils is frequently experienced by those exposed to the fumes?

Generally speaking, these highlanders are remarkably vigorous and long-lived, and singularly exempt from the ravages of tubercular phthisis. Indeed, so rare is consumption in these hovels, that he was led to investigate the causes of this immunity, upwards of twenty-five years ago, and published the results of his inquiries in an article on the "Non-Prevalence of Consumption in the Hebrides, and Along the North-western Coast of Scotland," which appeared in the *British and Foreign Medico-Chirurgical Review* for October, 1860. At that time, he visited most of the districts to which his investigations extended; and from what he saw and heard, he came to the conclusion that the comparative immunity from phthisis which these persons enjoy, is to be ascribed chiefly, at all events, to the inhalation of the peat-smoke, and the antiseptic ingredients contained therein, the tar, the creasote, and the tannin, together with various volatile oils and resins, black unctuous peat being rich in these substances. At that time nothing was known of the bacillus of Koch. It further appeared that any exemption from attacks of consumption which these highlanders enjoyed was only extended to them so long as they resided in their smoky huts. When they migrated to other parts of the country, or took up their abode in chimneyed dwellings, they often suffered like their neighbors; nor, after the lungs once became infected, was a return to the homes of their fathers followed by favorable results. The fumes of the smoky cabin then exercised no curative influence.

The inference to be drawn from these remarks is sufficiently obvious. When the bacillus has once established itself in the lungs, the time for antiseptic remedies has gone by. On the other hand, where there is merely a predisposition to phthisis, whether hereditary or acquired, where

also the climatic or social conditions for its diffusion are favorable, and where healthy persons are brought into close contact with those who are suffering from the disease, there it is reasonable to assume that disinfectants may prove of great value as prophylactics. Hence we may anticipate that, in the course of time, an efficient system of ærial fumigation will not only assist the physician in warding off disease, but may enable the surgeon also to dispense with the cumbrous appliances associated with antiseptic dressings and the steam-diffusing urn.

Notes and Comments.

Nitrogen in Urine.

Dumas' analysis is undoubtedly the most exact and reliable for the quantitative determination of the percentage of nitrogen contained in the urine, but it is a very complicated and troublesome procedure, not suited to the various duties of the practitioner. Kjeldahl sometime ago recommended a plainer method, but it has not been acknowledged as an accurate one. To decide this point, Drs. Pfluger and Bohland have recently instituted a series of (26) analyses of urine, with a view of testing the accuracy of Kjedahl's procedure (Pfluger's Archiv., xxxv., p. 454). They had come to the conclusion that it is so very near exact, that it more than answers all usual purposes of the physician. They have besides proven, that one part of K's method, which made the latter also somewhat complicated—the oxidation with permanganate of potash—may safely be omiited, as the result without it is just as reliable. For the benefit of the readers of the Med. and Surg. Rep., we publish in the following, K's procedure:

5 ctm. urine are heated with 10 ctm. English and 10 ctm. smoking sulphuric acid, until the fluid, at first black, has once more assumed a light yellow tint, a procedure usually occupying from 20 to 30 minutes. Then sodium lye is added and ammoniac is distilled off. The whole analysis, therefore, occupies scarcely half an hour. After distillation the residue is treated and weighed in the usual manner. Especially in cases of disturbed nutrition, and in those of artificial alimentation, the quantitative determination of nitrogen in the urine is a valuable aid in the treatment.

Cod-Liver Oil and Lime-Water in Scalded Throat.

Dr. H. D. Palmer very truly observes in the *Practitioner*, April, 1885, that so many little children die annually, especially amongst the poor, from drinking from the spout of a boiling teakettle, that a simple plan of treatment, which saved the life of a little child under his care a short time back, is worthy of record.

He was sent for to see Alice B., aged three, who when the mother was out of the room had attempted to drink from the spout of a boiling teakettle, which stood on a low fire-place about level with its face. She had succeeded in taking enough into her mouth to scald the throat most severely, and when he got to the house he found the little patient collapsed, livid in the face, and evidently dying from shock. The mouth was so swollen and scalded he could form no idea as to the extent of the injury to the throat. He thought the child would not recover, but determined, as it could not take food of any sort, to give it equal parts of cod-liver oil and lime-water, as much for the sake of a dressing to the injured parts as for the nourishment the oil would afford. He ordered it to be fed with a teaspoonful every hour, and from the first the beneficial effects were truly marvellous. The pain was evidently relieved by keeping the scalded surface constantly coated with this novel Carron oil, and as the child at first only swallowed with difficulty, it was longer in contact with the inflamed mucous membrane. In three days the child began to take notice, and in about a week afterwards all the distressing symptoms of difficulty of breathing, which had made him fear for its life at times, had vanished. As it improved, he added milk to its diet, and gradually reduced the oil and lime-water. It recovered completely.

Methyl Chloride as a Local Anæsthetic.

We learn from the Paris correspondent of one of our foreign exchanges that M. Tenneson has, in thirty-one cases, tested methyl chloride as a local anæsthetic. In ten cases of sciatica, the spray of chloride of methyl produced immediate and uninterrupted relief. In seven cases, the cure continued during a period which varied from seven days to three months. Twice it was necessary to make a fresh application, and the cure was then perfect. A patient who was unable to work, and had suffered for twenty-nine months, was completely relieved, except from a pain in the heel. Several fresh applications were made, and the pain eventually disappeared. Nine out of eleven cases of muscular rheumatism were

successfully treated. The pain disappeared, but muscular contraction remained. Articular rheumatism, acute and subacute, was relieved by methyl chloride; also, nodular rheumatism, and chronic rheumatism of the knee, contusion of the shoulder, stitches in the side, cases of pleurisy, tuberculosis, and pneumonia. The pneumonia was cured without any ill effects from the application of methyl chloride. Five or six seconds are sufficient; if the application be prolonged, erythema, hyperæsthesia, blisters, and superficial eschars may result. The spray should be directed obliquely, not allowed to fall perpendicularly on the cutaneous surface. After the first application, there may be ecchymosis of the skin. With female patients the application should last less than five or six seconds.

Splenic Murmur in Ague.

In some cases of intermittent fever, a peculiar intermitting murmur, greatly resembling pulsation, is heard over the enlarged spleen. This phenomenon has given rise to a great deal of dispute. Dr. S. Maissurianz (*Petersburg Med. Wochensch.*, 1882, 12,) has recently investigated the subject, and come to the conclusion that it is caused in the arteries of the spleen, the blood-wave getting into oscillation each time during systole in consequence of the soft, enlarged, and over-filled (with blood and serum) condition of the organ. M. has observed this splenic murmur, which sounds somewhat like a soft breath of air, in nine cases of intermittent fever, and it would probably be oftener met with, were it more frequently searched for. One can easily imagine that the walls of these arteries lose some of their elasticity, as the surrounding tissue loses it altogether; then the pressure of the mass is another factor, and thus the blood cannot pass through the vessels in an even flow, but is interrupted, and set into oscillations, which give rise to the peculiar bruit. In one of M.'s cases, the murmur disappeared on the third day under the use of large doses of sulphate of quinine. In most cases it is heard plainer and is more distinct during the febrile period, and it always ceases the moment the periodical seizures stop. In cases of chronic malaria, with a very moderately enlarged spleen, the bruit has never been perceived.

The Treatment of Migraine.

A typical case of this distressing and obstinate malady is well and graphically described by Dr. Alfred Drysdale in the *Practitioner* for April, 1885, who, speaking of treatment, says a drug must be administered which from its known physiological action is certain to reach the seat of the complaint. Caffeine, theine, and guarana, to a certain extent, fulfil this condition, but the ground is more accurately covered by glonoine (nitro-glycerine) and sepia. The latter he has found especially successful in mitigating an attack, though he has hitherto not yet succeeded in completely arresting one.

As a preventive, exercise regularly pushed to the point of fatigue is infallible. He has known the worst cases yield to this measure.

The prognosis is excellent; not even the most intense cases seem permanently injured by this strange malady. He has even observed that where it occurs in conjunction with phthisis, the latter has had a favorable issue.

Swallowing a Safety-Pin.

The following case, which Dr. Spencer Smyth reports in the *Brit. Med. Jour.*, May 2, 1885, is worthy of note. He says that he was called on March 16 to see a child aged three and a half years, who had swallowed, a few hours previously, a large safety-pin, an inch and a half in length. He found the child looking very pale, and somewhat frightened. The mother had given him a small quantity of castor oil, which had caused sickness, and relaxed the bowels once only. He ordered quiet, and a diet of hard-boiled eggs, biscuits, and milk, under which treatment the bowels became constipated. On the seventh day, fifteen grains of compound rhubarb powder was administered twice, bringing away, in the solid fæces, the pin, on the following day, the eighth after it had been swallowed. It was introduced into the child's mouth by the child's brother, only eighteen months old, who was playing with him, and pushed it down his throat; for a few seconds only it lodged in the gullet, causing a choky sensation. No pain was experienced at the time, nor was there any at the time it passed *per anum*. It was evidently voided lengthwise, the child straining, owing to the constipated state of the bowels.

Recovery after Fracture of the Skull.

In the *Pacific M. and S. Jour.*, April, 1885, Dr. Frisbie reports an interesting case of fracture of the skull in a boy aged eight years, who had been run over by a four-horse truck, that inflicted a scalp wound on each side of the head, and a depressed fracture of the left parietal

bone. There was considerable separation of the scalp and periosteum from the bone, as the child had been dragged for some distance. After removing a three-quarter-inch button by means of the trephine, the remaining portion of the bone regained its proper level, and the dura mater was found to be intact. The wounds were cleaned with a weak carbolic solution, the edges held in apposition by silver sutures, and dressed with compresses of absorbent cotton, and a hypnotic administered. Drainage was established by means of a small teat at the point of trephining. The patient was kept on a low diet, chiefly milk; the bowels were kept regular; and he recovered without a bad symptom, five weeks after infliction of the injury.

Treatment of Phthisis.

Before the Sheffield Medico-Chirurgical Society (February 12) Dr. Hunt read a paper on this subject. He agreed that the disease was a modern one, and pointed out that the countries most free from it were the northern and colder regions, and he strongly recommended the selection of such countries for the cure of phthisical patients. Dr. Hunt expressed himself very skeptical on all therapeutics as remedial agents, and strongly repudiated the course of certain authorities in recommending them as cures. He had extensively employed antiseptic inhalations, but without any marked success, and was disposed to rely very little upon their potency. Iodoform was another remedy that had been tried, but the results were not such as to warrant him to recommend it in the disease. Dr. Hunt closed his paper by expressing the opinion that in the future the treatment of phthisis would come more under the domain of surgery than it had ever done in the past.

Carbolic Acid in Gastric Disorders.

Dr. Spencer Smythe tells us in the *Brit. Med. Jour.*, April 18, that he has been in the habit for the last three years of giving carbolic acid, in grain doses, three times daily, for indigestion, accompanied by constant acid eructations, with pain and vomiting. He has also prescribed it in seasickness, and in the vomiting of pregnancy, with good results. It can be given with opiates, where there is much gastrodynia, after meals; also with bismuth, nux vomica, etc.; also in cases manifesting gastric ulcer. Patients suffering from flatulency have derived considerable benefit from its employment, it being more readily taken than charcoal. He considers it a valuable remedy in such cases.

Special Report.

OPHTHALMOLOGY.—NO. XVIII.

BY CHAS. S. TURNBULL. M. D.

(*Review of Transac. Am. Ophthal. Society, concluded from page* 726.)

A New Perimeter is described by Ezra Dyer, M. D., Newport, R. I. The advantages claimed for this perimeter are:

1. The entire field of vision is traversed by eccentric object from the periphery to the centre, and by reversing the motion, from centre to periphery, in two minutes, without haste. This brings an exhaustive examination of the field of vision, for the detection or exclusion of a limitation or scotoma, within the available time of any one.

2. When a limitation of the field is detected it can be very rapidly mapped out, saving time to the examiner, fatigue to the patient, and ensuring greater accuracy, as in the short time required there is little danger of a movement of the head.

3. Both objectives can be made small electric lights of from one to seven candle power at will.

With these, the sensibility of the retina can be tested quantitatively.

H. S. Schell, M. D., of Philadelphia, records "*A Case of Embolism of the Retinal Artery*," which has some features of peculiar interest. In his interesting description of the case, S. says: "In the inferior branch of the artery, just before it passed over the edge of the disc, there was a space about one-fourth of the disc's diameter in length, which was apparently empty of blood. This space included the entire calibre of the vessel, was pale in color, and motionless. Pressure upon the ball from before backward, in the manner recommended by Mauthner, so as to increase the ocular tension, emptied the veins completely, but had no effect upon the arteries. The veins refilled instantly when the pressure was removed. After massage had been practiced in this way for some minutes, a regular current of blood began to flow through the vessels. This movement was made visible by the fact that the blood-stream was broken into numerous very short cylinders, separated by about their own lengths, and following in procession, without rhythm, and with about the apparent rapidity of the blood corpuscles in the capillaries of a frog's foot, under the microscope. These little cylinders passed from the disc some distance along the arteries before they were lost sight of in the

œdematous retina, then formed again at the distal extremities of the veins back to the disc."

The next is "*A Case Illustrating the Natural History of Cataract.*" By A. Mathewson, M. D., of Brooklyn, N. Y.

Another, "*Myxo-sarcoma of the Orbit and Osteoma of the Orbit.*" By Wm. F. Norris, M. D., Philadelphia.

A "*Clinical History of a Case of Sympathetic Ophthalmia,*" graphically related by L. Webster Fox, M. D., serves to teach us an important lesson.

"On December 15, 1883, William R., æt. 12 years, whilst cutting a cord with a sharp-pointed knife, accidentally punctured his left eye in the ciliary region. The wound, which was four lines in length, and deep, was situated in the inner and lower quadrant of the ball, near the cornea. Cold applications made, and the eye bandaged. In twenty-four hours serous iritis developed, closing the pupil and obscuring vision. This condition went on from bad to worse till qualitative perception of light only remained. There was no pain, neither was the eye sensitive to light during the acute stage of the iritis. The patient was allowed his freedom during this time, and a mydriatic was not applied, nor internal treatment advised. It was thought the inflammation was due to a "cold," and would soonpass off.

On January 2, the boy was sent to school; the eye at this time still very much inflamed, but without pain, it being protected by a bandage.

On the 4th of January, he complained of a dimness obscuring his distant vision in the right eye. His mother (a poor widow) sought the aid of an ophthalmic expert, who, recognizing the gravity of the case, at once instituted vigorous treatment. The eye soon became as bad as its fellow.

On March 28, 1884, the date the patient was first seen by myself, the conditions were as follows: Left eye (injured one), cornea hazy, keratitis punctata, balloon-shaped iris, degenerated in spots, occluded pupil, sclerotic congested, slight perception of light. The cicatrix of the wound well defined. The right eye similar in appearance, excepting the pathological conditions more pronounced. On the iris, which was very much thickened, could be discerned by oblique illumination new-formed blood-vessels. There was barely qualitative perception of light. During inflammatory process, the patient suffered little or no pain; light, however, could not be borne. We could only confirm the prognosis given by the former attending physician; but as considerable inflammation, as well as inflammatory deposits, remained, we instituted mercurial treatment guarded by opium, with instillations of atropia, as well as applying leeches to temples. This treatment was forced to salivation, but did not modify the virulency of the disease.

On April 19, my friend Dr. R. B. Schulze, under whose care the patient was at this time, wrote me that hypopyon made its appearance in the right eye during the last few days; some slight supra-orbital pain. The mercurial treatment, both internally and externally, was resorted to, in small but frequent doses; the inflammation seemed to respond to the treatment, for in three days the pus disappeared, the thickened and yellowish-brown iris assumed a more normal shape and color. During the following few weeks the sclerotic congestion disappeared, becoming white. Lachrymation, which at times was profuse, now disappeared entirely, the eyes assuming a normal appearance, but vision gone.

On June 21, I saw the patient and noted the following: Right eye, all traces of inflammation gone, but atrophied to one-half its former size. No perception of light. Left eye evidently becoming atrophic, perception of light (?) in the upper field; sclerotic white.

Two Cases of Orbital Abscess, by J. A. Lippincott, M. D., Pittsburgh, Pa. Both cases are interesting.

Another peculiar and interesting paper is entitled *Experiences in Refractive Cases*, by W. W. Seeley, M. D.

Cases of Disease of the Frontal Sinus, by Charles J. Kipp, M. D., Newark, N. J.

Case 1. *Abscess of Frontal Sinus, Ethmoidal Cells, and Sphenoidol Sinus.* John Bredfelt, fifty-two years of age, in good health, consulted me in March, 1883, with regard to a double vision and pain in the head. He had suffered for many years from frontal headache, but had otherwise always enjoyed good health. A year ago he first noticed the diplopia, and since then a gradual protrusion of the eye has taken place.

I found that the left eye was pushed downward, outward, and slightly forward, the cornea of this eye staning about 1 cm. below that of the other eye. The mobility of the eye was decidedly impaired upward and inward. The eyelids were normal, except that the upper was rather fuller than that of the opposite side. Palpation discovered a nodular tumor of irregular form, which was adherent to the upper half of the inner and nearly the whole of the upper margin of the orbit. It projected about 1.5 cm. towards the

eye, and extended back in the orbit as far as the finger could reach. It felt hard and unyielding to the finger. No fluctuation could be discovered. No pulsation of the tumor could be detected. The sight of this eye was normal, and the ophthalmoicopic examination revealed no abnormality, except slight hyperæmia of the retinal veins. I supposed that the tumor was a sarcoma connected with the periosteum of the orbit, and advised removal.

The sight of the right eye was perfect; it was slightly myopic. A few days later, the patient being under ether, I made an incision along the upper margin of the orbit, exposing the tumor. I then introduced my finger to ascertain the character and extent of the tumor, and learned that it was in parts as hard as a bone. While still exploring, I felt a break in one of the hard parts of the tumor, and a moment later a considerable quantity of very fetid pus escaped from the incision. I now endeavored to ascertain the extent of the abscess by means of a probe, and found it to extend so far upward and backward that I concluded to abstain from further exploration. I made a free opening in the wall of the abscess, evacuated large quantity of offensive purulent matter, and introduced a large drainage tube into the opening. When the patient became conscious, he complained of a horrible odor in his nose, and expectorated much fetid pus. After this, the cavity was washed out daily with a warm and very weak solution of salt, some of which escaped from the nose. For ten days after the operation, the patient was apparently doing remarkably well, the eyeball had resumed its normal position, the diplopia was less, the headache had almost entirely disappeared, and the patient was entirely free from fever. But on the eleventh day he showed symptoms of pneumonia, which in spite of the most assiduous attention ended fatally on the seventeenth day after the operation. The autopsy was made on the following day by Dr. R. Stachlin, who had treated him for the pneumonia, and myself. The examination showed that the frontal sinus, the ethmoidal cells, and the sphenoidal sinus, had been converted into one large cavity, which contained some pus in its lowest part. The bony walls of the cavity were carious, and numerous sharp spiculæ of bone projected from the walls. The inner surface of the cerebral plate of the horizontal process of the frontal bone was discolored in several places, but not roughened. The dura mater over these places as well as everywhere else was normal, and the other meninges and the brain itself were apparently healthy. The floor and outer wall of the abscess consisted of very much thickened periosteum, in which a number of thin scales of bone were imbedded, and in one of these the opening was found from which the pus had escaped during the exploration. The lungs showed a simple pneumonia; there were no abscesses, and none of the other usual appearances of metastatic pneumonia.

Remarks.—The mistake made in the diagnosis of this case seems unavoidable.

The slow development of the tumor, its size, hardness and inelasticity, the irregularity of its surface, and the absence of all inflammatory symptoms, made it extremely probable that the tumor was a fibroma or sarcoma originating in the periosteum of the orbit. Fortunately, this error in diagnosis resulted in no harm to the patient, for, had I known the true character of the disease, I should have operated as I did; but I should have been more guarded in my prognosis. In no other case have I seen the bony partition between the frontal sinus, the ethmoidal cells and the sphenoidal sinus so completely destroyed as in this.

Case 2. *Distension of the Frontal Sinus. Cured by Applications to the Mucous Membrane of the Nose and Pressure of the Tumor.* Mrs. N. A. W., fifty-seven years of age, a large and healthy looking woman, consulted me with regard to a painful swelling below the left eye-brow, in October, 1882. According to her statement, she had for many years suffered almost constantly from a severe pain in the left frontal region. The tumor began to appear six months ago, and had since steadily increased in size. She had not sustained any injury to the nose or head, but had always had naso-pharyngeal catarrh. The tumor was about the size of a hickory-nut, and was immovably attached to the inner upper angle of the orbit. It extended into the orbit as far as the finger could reach. The surface of the anterior part was smooth, that of the posterior portion nodular. The tumor was quite hard, but on deep pressure fluctuation could be felt. The skin over the tumor was normal, and not adherent to the swelling. The eye-ball was pushed slightly downward and outward, and its movement upward and inward was somewhat impeded. The diplopia did not annoy the patient very much; The examination of the fundus of the eye showed nothing abnormal. With the exception of great swelling and congestion of the mucous membrane, nothing abnormal could be detected in the nose. There could be no doubt that the tumor was caused by the distension of the frontal sinus, and I therefore advised the pa-

tient to have an operation made for the purpose of establishing communication between the nose and the frontal sinus. This the patient declined to have done.

I did not see the patient again till July 21, of the following year. At this time the tumor was somewhat larger than it had been when I first saw her, but otherwise it had not changed. There was now in addition much injection and œdema of the ocular conjunctiva, and a shallow ulcer in the center of the cornea. The eye became painful several days ago, and the redness was first noticed two days before. The patient attributed the eye trouble to overheating while working in the field, and was sure that the eye had not received a traumatic injury. I prescribed fomentation with a warm solution of boracic acid, and instillations of atropia. Under this treatment the ulcer healed completely in about twenty days. While under treatment for the corneal ulcer I frequently examined the tumor, and on one of these occasions felt it to give way, and on pressing somewhat harder I evacuated the cyst almost entirely. At the same time the patient felt something exceedingly disagreeable in taste in her mouth, and expectorated a considerable quantity of very offensive, bloody muco-purulent matter. I now learned from the patient that the swelling had "broken inwardly" several times during the last few months, and the discharge had on each of these occasions been exceedingly offensive. I applied solution of nitrate of silver to the mucous membrane of the nose, and frequently washed out the nose with warm salt water, and at the same time instructed the patient to evacuate the cyst by pressure very frequently through the day. For some weeks after this the cyst refilled very quickly, and at one time an inflammation of the skin over the tumor was developed, which spread also over the right half of the forehead. Under the application of ice compresses this subsided, however, very quickly. Until the first of May, 1884, the patient was free from pain in the eye and forehead; the cyst became distended but rarely, and when it did could be emptied by slight pressure. Although always of a disagreeable taste and odor, the discharge had not been offensive for several months. The diplopia had entirely disappeared.

In the early part of May, while apparently in excellent health, she had a severe chill, followed by fever and sweating. I saw her on the following day, but could find no marked change about the frontal bone. The ophthalmoscopic examination revealed indistinctness of margin of optic disc, but no other abnormality. Quinine was given for a week, and no other paroxysm of fever occurred. Since then the patient has enjoyed excellent health. The tumor has not reappeared for many weeks, and the optic disk is again entirely normal. The skin over the inner upper margin of the orbit is somewhat thickened, but otherwise normal. The defect in the inner upper angle of the orbit is about the size of a ten-cent-piece, and its margin is markedly nodular, several of the nodules being about the size of a pea. The end of the finger can almost be pushed through the defect into the frontal sinus. The mucous membrane of the nose is still swollen, although the swelling is much less than it was six months ago. Now, it is not an uncommon occurrence for air to enter the frontal sinus and distend it when she blows her nose.

Remarks.—This case seems worth reporting, as it shows that in some cases, at least, this disease can be cured without resorting to an incision in the outer wall of the distended sinus. In nearly all of the cases that I have seen, in which the sinus was thus opened, a permanent fistula, causing much annoyance and some deformity, and any method of treatment not involving such an incision, and yet giving as good results, will, I have no doubt, be welcomed. It can certainly do no harm, if it does no good, to endeavor to cure, or at least improve, the morbid condition of the lining membrane of the nose, which will be found to be present in most, if not all, of the cases of distension of the frontal sinus. Attempts to empty the sinus through its obstructed or closed passage into the nose by digital pressure on the swelling should be made from time to time, and after the sinus has been once emptied, it should be evacuated at short intervals. If, after a fair trial of this treatment, the distension continues, the old method of treatment may be resorted to.

A Case of Glioma of the Retina (Double Congenital) by Wm. S. Little, M. D., of Philadelphia. It was seen in a child eight months old. He says in a case recently reported by Mr. Snell, at a meeting of the Ophthalmological Society of the United Kingdom, the mass in each eye was recognized at three months of age. Child seen by Mr. Snell when it was eight months old; the right eye was removed; three years later the left eye enucleated; eighteen months later the child died, a tumor projecting from the forehead; there was no recurrence in the orbits. The age at death was five years and two months.

Enucleation evidently prolonged life in this

case; the rejection of any surgical interference by the parents of the case reported, did not allow this to be shown, but as fatal results are reached in congenital cases, so rapidly, operation becomes almost questionable; when recognized early it is advisable. An interesting feature in this case is that while the right eye was more involved the tumors on the left side of the head were larger than the one on the right side, and yet the mass in the left eye developed very slowly, or almost remained stationary.

In two other cases seen at his clinic, in older children, and only one eye involved, the operation was refused; done, however, by another surgeon, after the eye had broken down, and fatal results soon followed.

Two Cases of Swelling of the Optic Papilla—Possibly Congenital. By George C. Harlan, M. D., Philadelphia, who says, "Though optic neuritis without impairment of the vision in its early stages is a common enough occurrence, the two cases seemed worthy of record, on account of the high degree of sight retained, and the length of time they were under observation without change in the ophthalmoscopic appearances, and without the development of any other symptom."

Two Cases in which Rählmann's Hyperbolic Lenses Improved Vision. By G. Hay, M. D., Boston, Mass. He regarded case 1 of slightly developed conical cornea, with irregular astigmatism; and case 2 pronounced conical cornea of each eye; no opacity at apex noticed.

A Case of Myxœdema with Atrophy of the Optic Nerves. By O. F. Wadsworth, M. D., Boston. It is only quite recently that the disease known as myxœdema has excited much attention; its pathology, beyond the fact that there is a deposit of mucin in the subcutaneous tissues, is still unknown; and even the symptoms observed in the cases reported have presented in some respects considerable variations. Although symptoms pointing to disturbance of the cerebral nervous system have occurred in some cases, no affection of the eyes, in particular of the optic nerves, has, so far as I am aware, been described. It may, therefore, be of interest to put on record the following case, in which there was atrophy of the optici. It may well be that the optic atrophy was only coincident, and had no direct connection with the myxœdema. Yet primary atrophy, as this evidently was, when it affects both eyes, is of comparitively seldom occurrence as an independent lesion.

A Report of the Examination of the Employees of the Pennsylvania Railroad as to Color Sense, Acuteness of Vision, and Hearing, by William Thompson, M. D., Philadelphia, Pa. An instrument for the detection of color-blindness, described in our Proceedings* of four years ago, a modification of Snellen's Letters, in the form of a disc, and a series of rules and regulations prepared by the writer, were adopted by the officers of the Pennsylvania railroad, and have been used in the examinations of their employees in signal duty, and is in use now in the selection of all men who enter the service. The road operates five thousand miles of track, situated in six different states, and has about fifty thousand employees, of whom from ten to twelve thousand have to do with signals.

Upon each of the fifty divisions there are two examiners, who are instructed by the surgical expert in their duties, their results being recorded on blanks, which contain all the information needed by the division superintendent, who can transfer to other duties men below the standard, or refer them for final examination or treatment to the surgical expert. The rules and regulations and blanks have already been published, and can be obtained from the General Manager, Mr. Chas. E. Pugh, who, in a letter dated April 20, 1884, says: "In approaching the completion of the task of examining those men in our service (more than twelve thousand employees having now been submitted to your system), I desire to express to you our entire satisfaction with the rules and regulations, tests and instructions prepared by you, as well as with the personal supervision, instruction of examiners, and examinations and decisions of all doubtful cases, and persons referred to you for final action.

"Our reports satisfy me that about four per cent of color blind, and ten per cent, defective in vision, have now been removed from the service, or transferred to other duties where they can do no injury; and that the great dangers to the public and to other employees of loss of life, and to the company of possible destruction of property, have been averted, so far as these defects are concerned.

"I am frequently asked by prominent officers of other railways, and government officials, to give an opinion as to the practical usefulness of our system of examinations, and it affords me much pleasure to emphatically commend it in all its details; and I feel that we have good reason to be satisfied with this, the first successful attempt to bring the entire body of men engaged in signaling upon a large railway under control by

*Am. Ophthal. Society.

the practical application of scientific facts. Having eliminated these dangerous persons from our present force, we propose to keep it free from them in future, by a steady application of our present system.

I will add, that so smoothly has the entire system been worked, that no change has been found necessary. The example of this, the most important road in the country, in the wise employment of scientific knowledge, can now be safely followed by others, or might be made the basis of legislation, should it be found requisite."

A Case of Acute Dacryo-adenitis. By T. R. Pooley, M. D., of New York. "Acute inflammation of the lachrymal gland is of sufficiently rare occurrence to make it worth while for this reason alone to report an additional case, but the one I am about to put on record showed another interesting feature. which makes it especially worthy of mention.

The patient, a healthy German girl of about twenty-four years.

The interesting and unusual feature in my case is the occurrence of an acute inflammation of the gland, during the course of an acute diphtheritic inflammation of the other eye, and raises the question in my mind whether it may not have been caused by septic absorption. The general health of the patient was very greatly impaired, and the slight rise of temperature may have been due to a mild septicæmia. In regard to treatment, hot applications, with the systematic use of pressure, together with incision should the abscess point, is all that is required. Although I have seen a small number of cases of chronic and sub-acute inflammation of the lachrymal gland, this is the only instance in which the case has run such an acute course."

Multiple Colobomata of the Iris, or Polycoria Congenitalis. By W. F. Mittendorf, M. D., New York. "The infrequency of this condition will, I hope, excuse me for reporting two cases of this kind. Double pupils, congenital as well as traumatic, are not rare, but five pupils in one eye are not often seen. Cuts accompany this rare anomaly."

Removal of Foreign Bodies from the Vitreous by Aid of the Electro-Magnet. By Joseph Aub, M. D., Cincinnati, O. "The cases I am about to report, are such as occurred in my practice during the past four years.

From 1875 to 1881, we had eight different times, attempted the removal of pieces of gun cap, iron or steel, from the vitreous by aid of forceps. Twice the ordinary horse-shoe magnet was called to assist in the operation. Six of the eight cases were relieved of the foreign body, but in two I utterly failed. In all cases the operation was followed by severe inflammation, and enucleation of the eye-ball had to be performed sooner or later, either by myself or some other oculist.

In 1881, after Dr. Bradford had described his electro-magnet, a case came into my hands in which it seemed to me the magnet could be advantageously used, and I immediately procured one, and used it successfully. Since then other successfully operated cases have occurred in my practice. During last fall, Hirschberg, in the *Centralblatt für Augenheilkunde*, reviewed the book of Dr. Snell, of England, "On the Use of the Electro-Magnet in the Removal of Foreign Bodies from the Eye," and in studying this review, I was exceedingly surprised at the few successful operations reported; for up to that time my cases had all been successful. My cases were such as occurred in the usual run of practice, and were not specially selected for that purpose. Since last fall I have had one case in which the electro-magnet failed to remove the foreign body, and where enucleation was subsequently performed."

A Cass of Hypermetropic Refraction, passing while under Observation into Myopia—Symptoms Simulating General Nervous Disease, reported by S. D. Risley, M. D., Philadelphia, was one of the most interesting of all the papers read, and to be understood must be read in toto, and to those interested it is well worth looking up.

Correspondence.

Polypus of the Trachea.

Eds. Med. and Surg. Reporter:—

Mr. S., aged seventy-two years, consulted me last month, saying that he had been suffering with a suffocating feeling in his windpipe for the last two years, and that the difficulty of getting his breath had increased so much lately that he could scarcely breathe. He had also a large goitre, and he said that the physicians whom he had consulted thought that the difficulty of breathing was caused by the pressure of the goitre upon his windpipe. His face presented a most anxious and distressed appearance, and his speech was painful and interrupted. His respiration was of that peculiar whistling character indicating a narrowing or obstruction of the trachea. He could only breathe with the slightest ease by sitting with his elbows resting upon his knees, and was constantly harassed by a short hacking cough. He said he felt as if he would choke every moment; and it really employed all the energy of both mind and body to maintain the function of respiration. In consequence of his distress in breathing it was most difficult to get him to hold his head in a suitable position for me

to examine his larynx; but after some patience and many repeated efforts, I succeeded in getting a look at it, and found nothing there to explain the great impediment in breathing; and not suspecting the presence of a mucous polypus within the trachea, I inferred that the difficult and imperfect respiration arose from the pressure upon the trachea of the goitre, and tracheotomy was the only means that suggested itself to me as being most likely to save the old man from impending suffocation; but thinking to make a rapid impression on the goitre, I gave him five grains of iodide of postassium in a half ounce of water every hour, and ordered the goitre to be well rubbed three times a day with compound iodine ointment. Early in the morning of the third day of this treatment, the old man called his daughter, telling her that he was choking to death. As she stood by her father's side, she said she could hear something fly up and down his windpipe, and in a few moments after a violent coughing spell a fleshy body the size of a cranberry flew with great force out of his mouth and dropped into his lap, and immediately his breathing became easy and natural. She at once sent the substance to me, and I, at a glance, recognized it to be a mucous polypus with its slender pedicle attached. I cannot say that the iodine treatment had anything to do with the expulsion of the polypus, but fortunately for the old man it was expelled, and he has had no trouble with his breathing since. J. B. Johnson, M. D.

Washington City, D. C.

News and Miscellany.

Epidemic of Typhoid Fever, at Plymouth, Pennsylvania.*

Dr. E. O. Shakespeare gave a verbal report of the investigations which Dr. M. S. French and himself, at the request of the mayor, had made concerning the nature of the Plymouth epidemic.

They had reached Plymouth on Saturday night, May 9, and on Sunday had an opportunity of making a post-mortem examination on one of the patients who had died from perforation. Well-marked evidences of peritonitis were found, the point of perforation being readily seen. On opening the intestine, the characteristic lesions of typhoid fever were well-marked. The spleen and the liver were also enlarged and softened. Other post-mortems were made, showing the same condition. The clinical history of patients examined, also corresponded to typhoid fever. They had remained at Plymouth two days.

He then gave the following descriptions of the conditions under which the epidemic arose:

The town of Plymouth nine months out of the twelve is supplied with water from a mountain stream, and during seasons of drought, occurring usually three months in the year, water from the Susquehanna river is pumped directly into the mains at the lower portion of the town.

In consequence of the frozen condition of all the streams in that portion of the country surrounding Plymouth, about the 20th of last March the usual mountain source of water supply became inadequate, and, therefore, the water company began on that date to pump water from the Susquehanna directly into the mains in the lower streets of the town, while the upper streets on the hillside were still supplied from the reservoirs of the mountain stream. The pumping from the river continued until the evening of the 26th, when a sudden thaw, accompanied by slight rains, again filled the reservoirs.

During the period of pumping from the Susquehanna, the water in that river was lower than it had been for years, and the surface was frozen tight. The city of Wilkes-Barre, containing 30,000 inhabitants, delivers its sewage directly into the Susquehanna, the mouth of the lower sewer emptying only two miles above the Plymouth pumping-station, while the current is very rapid between the two towns. The water is further contaminated by refuse water from five or six mines, as well as by the garbage from the abattoirs at Wilkes-Barre. Notwithstanding this unusually filthy condition of the Susquehanna water, it is beyond question entirely innocent of causing the epidemic, for the following and other reasons:

There was less of typhoid fever in Wilkes-Barre at that time than usual. A section of Plymouth supplied exclusively by the Susquehanna water and by a few wells, containing a population of 800, is entirely free from the disease, except in the case of eight persons, five of whom, previous to their attack, had been in the habit of going into the town and drinking the mountain water, while two were recent cases of secondary infection. In other portions of the town the extent of the disease was in direct ratio to the amount of mountain water used, and averaged $\frac{1}{10}$ of the population.

The lower portion of the town was principally supplied with the river water during the time of the pumping, while the upper portion at the same time received the greatest supply of mountain water. The rate of sickness is two cases in the upper portion to one in the lower, the latter also having been partly supplied from the reservoir.

The mountain stream has four reservoirs, the lower one distributing water throughout the town. The water in all the reservoirs was nearly exhausted at the time of pumping, and they were also frozen. The mountain stream is a small one, running down over a rocky bed, and on a declivity not eighty feet from its bed a dwelling is situated, wherein, during January, February and March, was located a case of typhoid fever that is only now convalescent, the worst period of the case being about the 20th of March. The attending nurse was in the habit, during each night, of carrying the excreta from the patient and depositing it on the ground towards the stream. The ground during all this time was frozen and covered with snow, until the thaw and rain already alluded to occurred. The poisonous character of the dejecta is not destroyed by freezing, but is only kept in a state of hibernation. A great part of the three months' accumulation of dejecta was suddenly swept into the rapidly running stream, and reached the lower reservoir as quickly as a man walking fast could have arrived there.

*Reprinted from the Proceedings of the Philadelphia County Medical Society, May 13, 1885.

In fifteen days from this time the epidemic began, fifty cases occurring daily between the 10th and 20th of April. Up to the present, twelve hundred have been sick, and one hundred have died out of a population of eight thousand. For the first three weeks the few people in town who used well water exclusively escaped the disease. The period of incubation varies between ten and twenty days, or longer, and therefore no other conclusion can be arrived at, than that the infective poison existed in the mountain water, and originated from the one case of fever in the house on the side of the stream.

The doctor went on to say, that although those people who used the water from the pumps in the town escaped at first, it was now found that the new cases developed in those who use well water. This was due to constant neglect to disinfect the excreta of the patients sick with the disease. In many cases they were thrown only a few feet from the well, and in this way the well water was now becoming contaminated. The people early became afraid of the hydrant water, and were now in great numbers resorting to the wells. Therein is the danger of a continuance and further spread of the epidemic.

Notwithstanding the frightful lesson which the one case of the fever along the source of water supply had taught the doctors and the people, not one precaution against the possibility of secondary infection from the sick in Plymouth had been taken. Drs. French and Shakespeare were the first to inform the local Relief Committee and the people of their danger, and to draft for them sanitary rules looking to disinfection of the excreta, and to rendering the drinking water, milk, and food harmless. They had occupied none of their limited time in looking into the milk or other food supply, for the reason that these could not possibly have been so universally contaminated, as would have been required for them to have caused the sudden outbreak all over the town.

They regarded this Plymouth epidemic of typhoid fever as unique in many respects. It is one more proof that there is required for the production of typhoid fever something more than the mere contamination of drinking water by common sewage or fæcal matter; that, on the contrary, for the production of the specific, infectious, and altogether characteristic disease, known as typhoid fever, there must be introduced into the human organism a specific, infectious, and characteristic cause, which is elaborated by and transmitted from a previous person sick with the disease.

It is one more example of the great injury to the public which may follow neglect of the use of disinfectants in the handling of isolated cases of infectious disease, and it is one more rebuke to those who, in spite of our modern knowledge concerning the infectious nature of typhoid fever, constantly neglect the practice of systematic disinfection.

Therapeutic Aids.

Nestle's Milk Food.—We have lately had occasion to try this food in cases of chronic dyspepsia, and in infants convalescing from affections of the bowels. It has fully borne out the high character as a nutrient awarded it by European authorities, and has succeeded better than any other food tried in these cases. The food is prepared in Switzerland, and sent in fortnightly shipments to to this country. We recommend those of our readers who have occasion for such an article to try it. Any druggist can obtain it.

Florida Orange Wine.—The pure juice of the orange, fermented and aged, has been found to produce a very light, palatable wine, with a flavor like dry sherry, and admirably suited to invalids. The agents are Messrs. Huey & Christ, 1207 Market street, Philadelphia. They will send full information about it to any one mentioning the name of this journal.

Disinfectants and Antiseptics.—The most complete line of these articles, so essential to health during the summer months, that we have seen is manufactured by Messrs. Parke, Davis & Co., of Detroit. They are both fluid and solid, for fumigating, washing, and bathing. A descriptive pamphlet will be sent by the firm on application.

Corrigenda.

On page 699, seventeenth line from bottom, for 60 grains to ℥, read 60 grains to ℨ.

Items.

—Dr. Robert Koch has been officially gazetted as Professor of Hygiene in the Medical Faculty of the University of Berlin, and has been appointed "Geheimer Medicinalrath."

—The fifty-third annual meeting of the British Medical Association will be held at Cardiff on Tuesday, Wednesday, Thursday, and Friday, July 28, 29, 30, and 31, 1885.

—Dr. T. H. Wingfield died at his residence at Townsontown, Md., on March 30, in the 59th year of his age. During the war he served on the medical staff of Gen. R. E. Lee.

—At the fifty-second annnal meeting of the Tennessee State Medical Society, Dr. T. L. Maddin, of Nashville, was elected President, and Memphis was chosen as the next place of meeting, the first Tuesday in April, 1886.

—The Board of Health of Boston has decided that old rags shipped from Egypt to that port with a certificate of the United States Inspector of Rags that the rags were disinfected by the sulphur process, cannot be landed except after further disinfection.

—A Medical Hygienic Congress is to take place at Buda-Pesth from September 3d to the 5th, inclusive. The following subjects are to be discussed: Mortality amongst children; sanitary administration; co operation of societies for the furtherance of hygiene; parochial sanitary matters.

Personal.

—Dr. George C. Catlett, Superintendent of the State Lunatic Asylum of Missouri, has been elected President of the Missouri State Medical Association.

DEATH.

NEWCOMET.—June 3, 1885, at St. Louis, Mo., H. W. Newcomet, M. D., of Philadelphia.

THE

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

REMARKS AND CASES CONNECTED WITH MEDICAL EXAMINATIONS FOR LIFE INSURANCE.*

BY ISAAC N. HIMES, M. D.,

Of Cleveland, Ohio.

I desire, in this paper, to notice some subjects not chosen because of a special importance, but such as have an occasional or recurring interest to those who, as an accompaniment of their medical or surgical practice, have to do with examinations for life insurance.

1. *The Influence of Life Insurance upon Personal Hygiene and the Hygiene of Cities.*

The time will perhaps come when life insurance will be esteemed as much a necessity as fire insurance. At present, the dictum of boards of fire underwriters is heeded by cities, when they say that more fire engines, and other appliances to prevent and extinguish fire, must be provided, else the premium on fire insurance will be raised in such city. Their warning results in action by the authorities.

Probably life insurance companies will come to look into the hygiene of cities in which they take their risks, and may have a good deal of influence, when they declare a city, or some portion of a city, to be too unhealthy to take risks upon the lives of residents, or of persons whose business hours are spent in such locality.

Even now some effect is produced by that knowledge which the public and individuals receive when they perceive the care which is taken in the process of a medical examination, and the inquiries made into the hereditary tendencies and personal habits which accompany it. Also the rejection of a candidate on account of some abnormal condition of the kidneys, urethra, lungs, heart, or brain, brings home to friends, and to the applicant himself, the influence which habits and surroundings are exerting upon his health.

The rules of health are thus impressed in a more forcible way than by lessons which are not connected with finance.

2. *Some Conditions of Doubt in Examinations of the Respiratory Organs.*

The question, What is the influence of chronic nasal catarrh upon health? occasionally appears in the foreground of a medical examiner's thoughts. Will the catarrh extend to the larynx and trachea and lungs? Will it produce ill health from impaired digestion? A chronic catarrh of the nose and pharynx is not very rare in those who are applicants for life insurance. It may be safely said, that among residents of the towns of the south shores of our Northern lakes, and among residents of large manufacturing towns, chronic catarrh of the nasal passages and pharynx is no rarity. It is generally considered to have no influence in shortening life, unless the case becomes very aggravated. The conditions spoken of are not at all those in which there is a syphilitic cause, but cases of simple catarrh. I have seen at least one case in which bronchial catarrh succeeded to severe chronic catarrh of the nose and pharynx.

The passage of large quantities of mucus and muco-purulent secretion from the posterior nares, down into the stomach, sometimes impairs the

* Read before the Ohio State Medical Society.

appetite, and thus influences digestion. The medical examiner cannot, on these accounts, entirely ignore these conditions of chronic catarrh. At the same time, a too rigorous exclusion of mild cases would lessen the proper business of a company, and deny insurance to many fair risks. Cases of simple chronic catarrh are often more an excessive functioning of the mucous membrane than an inflammation, and are due to irritation, and would disappear if the person were removed from an atmosphere containing coal soot, dust, grit, and finely powdered manure of horses, blown about by the winds, and, so to speak, eaten as well as inhaled by the citizens; or, such an irritation would disappear by removal from a location, when due to irritating gases connected with the manufacture of various products, or when due to the moist and cold lake winds with their great changes of temperature.

A second condition of doubt arises sometimes in connection with the respiratory organs, from some little roughness of breathing which is due to that which we call a cold, accompanied with an acute catarrh of the nasal passages. The same influences which have produced the cold—perhaps the breathing of raw, cold air—have had some effect upon the apices of the lungs. The swollen mucous membrane produces a shade of roughness of breathing, which causes the listener to fear a commencing bronchitis, or to fear that he may be led into accepting a risk in a case of beginning tuberculosis.

I have found some roughness of inspiratory and expiratory murmur, though rarely in men who, like carpenters, have been working in the dust made by saws. Such a permanently acting cause would require repeated examinations and postponement, to ascertain whether the condition was evanescent or permanent. The irritating conditions are similar to those which, in stone-cutters and grinders, produce a chronic phthisis. Whilst a man may be subjected, in his business, to frequent irritations of this kind, and yet never acquire pulmonary consumption, the writer feels sure that where hereditary peculiarities of tissue, and personal impairment of health, act with such irritations, the garden is being prepared for the implantation of the bacillus tuberculosis, or the lung is being prepared for the commencement of a chronic inflammation. There is also liability to acute bronchitis or pneumonia.

3. *Some Phenomena Connected with the Circulation of the Blood.*

There is sometimes a blowing sound produced by the subclavian and carotid arteries, heard when the walls of the chest are thin, and when the heart is urged to strong action for a little while, under the slight excitement of the beginning of an examination of the chest. This sound, which is not pathological, is heard at the beginning of the examination, and disappears after it has progressed. It is due, I believe, to relaxed walls of the vessels, and to pressure by the vessels upon the neighboring tissue, which acts in the manner of a constriction when the artery is quickly filled by strong action of the heart, producing a sound heard over the clavicle and above it, just as a murmur is heard when the stethoscope presses upon the carotid artery, and as a murmur is heard in the relaxed vessels of anæmia.

4. *Fainting in the Process of an Insurance Examination.*

Contrary to the above-named stronger action of the heart, the mental state produced by an examination may result in weakened action of the heart. It is an occurrence within the experience of many medical examiners to have had strong and healthy persons, almost always men, suddenly to faint under the process of an examination of the chest. I suppose an undefined feeling of apprehension that some serious disease of the heart or lungs might be detected by the examiner, produces an emotional panic, which weakens the heart's action. The action of the heart becomes feeble rather than frequent; the brain becomes anæmic, and the man faints. This may occur more frequently in examining the chest when the person is in a standing position. In both the above phenomena, there is not necessarily a departure from health.

It is curious to notice how emotional or reflex influences play upon the heart in these examinations. In one case, in which the applicant could not urinate in the presence of a second party, a sudden stoppage occurring even in a hotel urinal closet under such presence, the passage of a metallic sound in the urethra was sufficient to bring the pulse down to fifteen per minute, with the occurrence of nausea and perspiration. There was no stricture. There appeared to be an imminent danger of complete inhibition of the heart's action by the passage of the sound.

5. *The Place Where the Examination is Made.*

The present condition of competition among life insurance companies in large cities makes it necessary, in order to do business, that the medical examiner should often make his examinations at the applicant's place of businesss—the counting-house, the store, the factory.

The inconveniences of the place itself—the ab-

sence of accommodations, the lack of privacy for question and answer, the difficulty in having the shirt and underclothing removed in order to make the examination complete, the sounds of labor, the whirring of machinery—all render the examination liable to be defective; this is especially the case as to diseases of the chest.

For the purpose of doing an active business, there is no doubt that as few hindrances as possible should be thrown in the way of the agent in procuring the medical examination. If life insurance had something like the boards of fire underwriters, which should make rules governing such matters, it might be possible to bring about that all examinations should be made in the quietude of the physician's office; but at present this is not the case.

An expert ear can detect a good deal, even amidst a confusion of sounds. But the most expert ear will not be able to detect the slighter shades of dullness in the apices of the lungs, or the crepitant rales of a catarrhal condition of the minute bronchioles, in the beginning of tuberculosis, in the midst of the above distractions, or when there are coverings to the chest, such as woolen pads and stiffly-laundried shirt fronts, with the slender advantage of a coat and vest pulled backward over the shoulders.

I have known more than one case in which persons have placed more than ordinarily thick padding on the chest to try to prevent the examiner from recognizing the condition of the lungs. Such an intention to deceive is generally accompanied by the desire that the examination should be made at the place of business or work, where it will appear as an ungracious act if the examiner requests the removal of clothing or prolongs the examination.

Where chest examinations have to be made while retaining upon the chest the thickness of the shirt and undershirt, I think more knowledge is to be gained by applying the naked ear to the chest than by applying a stethoscope over these crackling, moving garments. The head, pressed upon the chest, holds these better from motion, and allows the ear to obtain the sounds of the organs, unless disturbed by the sounds external to the body, which, when the stethoscope is used, will modify and overwhelm the sounds made by the lungs. The stethoscope, always at hand, must be applied to the naked skin when any suspicion of abnormal sounds is raised.

The ideal, and the safest, examination of the chest is made with the stethoscope applied to the naked skin, and the ideal insurance company will insist upon this method of examination.

6. *Concerning Rejections of Applicants.*

Strictness on the part of a company in carrying out rules as to causes for rejection, and carefulness of the medical examiner, act in a double way to benefit the company. The agent soon learns to avoid bringing to the medical examiner applicants in whom the causes for rejection are apparent. The carefulness of the medical examiner prevents improper applications from being brought to him for examination, and sifts those which are brought.

Thus the more careful the company and its examiner, the fewer rejections of applicants there will be; for the applicants will be a select class before they are brought to the examiner. Lately, even beneficiary societies have directed an examinasion of the urine, as well as of the lungs and heart, in the case of every application for membership. There is ground for a well-founded opinion that those insurance companies which do not demand a complete examination of the urine in every case, are becoming the reservoirs of rejected applicants from the more careful companies, gathering in such as have been found to have albumen or sugar in the urine. This would be an appropriate punishment for neglect of modern methods of examination.

The following experience will show what pathological conditions may be found in such a select class of presumed healthy persons as has been mentioned above. Out of two hundred and sixty-six examinations for life insurance made consecutively, in every one of which there was included an examination of the urine for albumen and sugar, there were found the following cases of defective health: three had asthmatic conditions; two had irritable bronchi, with roughness of respiratory sounds; two had commencing acute bronchitis; one was declined on account of family history and hereditary tendencies alone; one had weak digestion and impaired nutrition; one had imperfect eyesight with other imperfections of age; three had albumen temporarily in the urine, which was due in one of the three probably to leucorrhœa, and in two of the three to gonorrhœa; two had permanent kidney albuminuria; one had oxalic acid, with clumps of leucocytes; one had sugar.

7. *Albumen in the Urine.*

Of late it has been asserted that there may be albumen present, as a physiological ingredient, in the urine at certain times in the daily twenty-four hours in the adult; also that it may be physiologically present in the urine of boys and girls. For the insurance examiner, however,

there is only one safe decision to follow, namely, that albumen in the urine is to be accounted abnormal in every applicant for life insurance.

Dr. George Johnson, of London, England, in his little book, "On Albumen and Sugar-Testing," says: "I cannot too emphatically insist upon the fact that the smallest trace of albumen in the urine, whether with or without the appearance of renal tube-casts, is always abnormal and pathological."

My own experience is in accord with this statement. In two hundred and sixty-six cases of presumed healthy persons, there were found only two cases of permanent albuminuria.

I have an applicant in mind in whose case there was temporary albuminuria from the presence of a carbuncle on the wrist; others of temporary albumen from the remains of gonorrhœa and leucorrhœa. We know that temporary albuminuria occurs in pyrexial diseases; but these cases only make more sure the conclusion that an insurance examiner must discard any case in which there is permanent albuminuria, or recurring albuminuria which is not due to temporary causes. Very rarely indeed do even peptones show their presence by the rose-red color with Fehling's solution. This experience in testing for albumen in the urine of adults does not bear out the idea of a physiological albuminuria.

Albuminuria in Workers in Lead.—In January, 1855, there came before me one case of a painter, using lead, who considered himself entirely healthy, but who had well-marked albuminuria. There were no casts of kidney tubules. A similar case was observed by a colleague in the preceding December. In these there was no blue line upon the gums, nor other symptoms of the influence of lead.

I have observed, a number of times, specimens of urine which were sometimes clouded when passed, and which gave a reaction like albumen. Even when filtered through animal charcoal, this suspicious reaction was obtained; it was not removed by heat, acids, or alkalies; it was not a reaction due to the presence of urates or phosphates; it appeared to be due to the presence of micro-organisms.

Several good and easily applied tests for albumen are in use. A ready, simple, and good one is nitric acid; a half-inch column of pure nitric acid being placed in the bottom of a test-tube and the urine gently dropped or allowed to trickle down the side of the test-tube upon it until an inch or more of the urine rests above the acid. Picric acid is another favorite. Heat, solution of sulphate of sodium, and other well-known reagents, readily confirm the test.

8. *The Presence of Sugar in the Urine.*

There have been published accounts of sugar in the urine which appears there physiologically. Probably physiological temporary saccharine diabetes is more common than physiological albuminuria, if the latter occurs at all.

In the last five years I have observed three cases in which the persons who had saccharine diabetes appeared to be in good health.

One of these was a case in which sugar was present for a month. This disappeared by removal of the gentleman from undue mental strain in business. In examinations made during a year, and after a year had passed, there was not found any further presence of sugar. So far as known, there was no change of diet in this case, nor was the person subjected to medical treatment.

In the second case, the person had the appearance of perfect health five years ago, when the presence of sugar was first discovered in the process of an insurance examination; and he still has the same appearance and subjective experiences of full health, physical and mental. Each year, for five years, I have examined the urinary secretion in this case, and have always found an abundance of sugar. On the 24th of April of this year I again made the examination, but found no sugar in the secretion of the whole twenty-four hours. His physician made an examination a week previous to mine, and found no sugar; but about a week before that he had found an abundance, namely, eight per cent. In this case a control of the diet causes the sugar to disappear. The amount of urinary secretion in twenty-four hours has not, upon the occasion of any of my examinations, varied much from fifteen hundred cubic centimetres, the physiological average. His physician tells me that the administration of bromide of arsenic causes a noticeable diminution of sugar. In June, 1882, there was found, upon analysis with Pavy's solution, two and one-half per cent. of sugar. In 1883, also in June, the amount was three-tenths of one per cent. The amount of sugar, therefore, varies from none at all to eight per cent. In this case, during all these years, this gentleman has been, so far as appearance and feelings are concerned, in perfect health, actively engaged in extensive business, and enlisted in projects of large benevolence.

In a third case, in which sugar was discovered in the process of an insurance examination, the person, although in good health, has always had a slight discharge from a wound received in battle twenty years ago. This gentleman does not un-

dergo any medical treatment nor dietectic management. It is now two years since his first examination. In examining a specimen of his urine in May, 1885, I found about six-tenths of one per cent. of sugar. The amount of urine passed in the twenty-four hours was not above the physiological average.

It would be interesting to follow these cases, and to observe what kind of risks they would have been for a company which had taken them.

Reliance upon Tests. — Fehling's solution, the constituents put up in two bottles, or as arranged in tablets, so that the solution can be made fresh, furnishes a convenient test. The bismuth test, the picric acid test, and fermentation, serve to confirm a suspicion of the presence of sugar, or to dissipate it.

Confirmatory tests should always be made. The presence of uric acid, and, as mentioned by a reviewer in a late number of the *American Journal of the Medical Sciences*, the presence of creatine and creatinine, will cause a similar reaction to that of sugar with Fehling's test and with picric acid. Unless more than one test is employed, there is therefore danger that the presence of these ingredients may cause a mistake to be made. It is a question, as said by the above reviewer, whether that which is supposed to indicate the presence of a small amount of sugar in physiological conditions is not, after all, due to the presence of creatine, or creatinine, or uric acid.

THE TREATMENT OF GONORRHŒA.*

BY J. WILLIAM WHITE, M. D.,
Of Philadelphia.

This is a continuation of the discussion of the subject which was considered one year ago, when I had the pleasure of opening the debate on the general subject of gonorrhœa. At that time the subject of treatment was not touched upon. I should like to say in the beginning that I have no idea that I come here to teach, but rather to learn, as has always been my experience when I have come to these meetings. This is especially true in considering a disease which is so common that every gentleman present has undoubtedly had frequent opportunities of studying it, and doubtless has well-matured ideas of treatment.

In taking up the treatment of gonorrhœa systematically, it may be divided into the prophylactic, the so-called abortive, and the curative. The familiar methods of prophylaxis, and I am speaking more particularly in regard to the disease as it occurs in the male, are the use of a cover during suspicious intercourse, immediate ablution and immediate urination, and are so well known and, at the least, so harmless, that it is hardly worth while to allude to them.

The use of preventive injections is so widespread among certain classes, that it will be well to say a few words in regard to them. There are certain injections, especially those of a disinfectant character, which have a great reputation among the laity. The chief of these are carbolic acid in solutions of various strengths, Labarraque's solution, phénol-sodique, dilute lead-water, Monsel's solution, and some preparations of iodine. I have known the glycerole of iodine to be used. In so far as these injections contribute to cleanliness, they are useful, but all the good derived is counterbalanced by the unwarranted feeling of security which their use affords. They are generally prescribed by non-professionals. Men about town carry these prescriptions with them, and hand them from friend to friend. They are often used of improper strength, and may become positively harmful, so that an irritative becomes developed into an inflammatory condition, and a true case of urethritis may be excited. They are, therefore, not to be encouraged by the regular profession.

The abortive treatment consists in the use immediately after the appearance of the first symptom of some irritative injection, which is intended to substitute for the so-called specific inflammation a simple inflammation, which is supposed to run a milder course, and to be more amenable to treatment. I do not believe that there is any sufficient evidence, either theoretical or clinical, to show that they accomplish this object. The favorite injection for this purpose is nitrate of silver, either in strong solution, which is injected and retained for a few minutes, or a weaker when it is thrown in from every fifteen minutes to every hour, until it returns tinged with blood, when, it is supposed to have excited sufficient inflammation. Those who were present one year ago will remember that my views in regard to the non-specificity of gonorrhœa are very positive. I have never seen any conclusive evidence that there was any specific character about gonorrhœa. I am, of course, therefore, not a believer in abortive injections. On the other hand, I am perfectly aware that different cases run a different course, which it is not possible to determine at the first visit.

Gonorrhœa, as studied clinically, may, I think,

*Delivered before the Philadelphia County Medical Society.

be divided into three distinct aad easily recognizable varieties. First, the irritative or abortive, which rarely progresses to any serious extent; there is simply a little redness and pouting of the meatus, slight discharge, and a little tenderness on urination, which subsides without treatment. Second, the sub-acute or catarrhal gonorrhœa, in which the symptoms progress to a more marked degree, the discharge grows profuse, there is some pain on urination, etc., but much less than in the third or acute inflammatory variety, in which all the symptoms are much more marked and serious. At the first visit, these three classes are often indistinguishable. You cannot say whether you are dealing with a case which will subside without treatment, or with a case that will be long and protracted, or with one intermediate between these two. Consequently, if a powerful injection is used, there is a risk of converting a simple case into one as severe as follows any acute infectious affection. Lebert, the writer of the article in "Ziemssen's Encyclopœdia" on this subject, who is an ardent advocate of the specific nature of gonorrhœa, is compelled to admit, that, although theoretically this treatment seems to be indicated, as a matter of fact, he has seen such severe phlegmonous inflammation and such dangerous symptoms follow the use of "abortive" injections, that he does not recommend them. As this treatment is still used by some, and is not discountenanced by many of the text-books, I have thought proper to give this amount of time to it, and to say definitely that I see no reason for employing it.

This brings us to the curative treatment, which I have found (and I suppose that most others can say the same) to be more or less unsatisfactory. Dr. Maury used to say, that of all cases that came to him, there was none in which he had so much hesitation in giving a definite prognosis, either as to time of cure or freedom from complications, as gonorrhœa. I suppose this has been the experience of others who have seen many of these cases. I do think, however, that with very careful attention to details, a great deal of success can be secured which otherwise would be lacking, and that many complications can be avoided.

To go into detail, and to base treatment on rational grounds, it is necessary to consider the anatomical and physiological characters of the parts affected, and these explain why it is that treatment is so unsatisfactory. We must remember that the inflammation affects a long, narrow and sinuous canal, whose sides during the intervals between urinations are in contact; that through this canal passes a fluid which is liable to various disturbances, from cold, indigestion, and other causes, and which is always more or less irritating; that this canal is always subject to intense congestion from sexual stimulation; that it always has a disproportionately large blood supply, which predisposes to inflammatory conditions and favors their continuance when once excited; that it lies in loose, spongy tissue, which gives very little extra-vascular support to the vessels. These conditions react one upon the other. The period of congestion during erection not only favors inflammation, but the inflammatory condition predisposes to erection. If we consider these facts in connection with the excessive nerve supply to the parts involved, it can be readily understood why gonorrhœa is unsatisfactory in its treatment, and is apt to be prolonged in its course or delayed by complications; and in giving advice in any case of acute gonorrhœa, it is well to bear these conditions in mind.

For example, when a patient with acute inflammatory urethritis pays his first visit, it would be proper, remembering that the part is subject to congestion from erection, to warn the patient agains sexual stimulation, against lascivious thoughts, against coming in contact with women, against subjecting himself in any way to sexual excitement. It is worth while to dwell upon this physiological rest, which is just as important here as it is in the treatment of any other form of inflammation.

It should also be remembered that the pendulous position of the organ favors gravitation of blood. It is, however, rarely possible to get a patient with acute gonorrhœa to go to bed. If the patient can be induced to assume a recumbent position, with the hips elevated, on a hair-pillow, as much will have been done toward effecting a cure and avoiding complication as can be accomplished by the use of any drugs. The value of this is seen in hospital practice. Hospital gonorrhœas are, on the average, more amenable to treatment, run a shorter course, and have fewer complications, than cases in private practice. The reason of this is that such patients are put to bed and given the inestimable advantage of rest in the recumbent position. If the patient cannot give up his business, or does not dare to, for purposes of concealment, there is a positive unfavorable influence at work. The patient is then to take all the rest in his power, and should be advised to walk instead of running and ride instead of walking, to sit instead of standing, and to lie down with the hips elevated whenever it is possible.

In order to overcome the irritating character of the urine, strict rules in regard to eating and drinking should be given. I think that the very best diet in the earliest stages is a skim-milk diet. Patients will often, or usually, object to such a radical measure, on the grounds of concealment, and it is often impossible to get them to adopt such a strict diet. We should then endeavor to approach as near as possible to this diet. Salad dressings, mustard, vinegar, salt, pepper, and asparagus, are to be particularly avoided. Everything which has a stimulating effect on the genito-urinary apparatus is to be excluded. The diet should consist chiefly of milk and farinaceous articles. The free use of diluent drinks should be encouraged, and plain water is as valuable as any. I direct these patients to drink, if possible, three or four quarts of water daily. When this is done, two or three things are accomplished. The water acts as a mild laxative, it acts as a diluent to the urine, it reduces the appetite and renders the limited diet more easy of observance. With the idea of promoting the watery character of the urine and reducing its irritating properties, an alkaline diuretic, as bromide of potassium with acetate of potassium in neutral mixture, combined with a few drops of tincture of aconite and of belladonna, may be used.

In addition to the above directions, I usually confine myself at the first visit to ordering a proper dressing. Patients, particularly with their first attack, usually come with cumbersome, warm dressings tied around the organ with a string, or with some of the rubber covers often sold for this purpose. These dressings act as poultices, keep the organ warm and moist, and favor the flow of blood to the part. The best dressing in any particular case depends on the character of the foreskin. If it is long and pendulous, a little piece of absorbent cotton may be placed over the meatus and held in place by drawing the foreskin over it. If the foreskin only half covers the glans, a piece of old linen or patent lint, three inches square, may be taken and a hole cut in its centre; the linen is then slipped over the glans and held in position by drawing the foreskin forward; the ends are brought in front of the meatus, and if the little squares of linen are changed frequently enough, they protect the skin from the discharges. If there is no foreskin, the best dressing is either an old stocking pinned to the undershirt or a bag of muslin. The points which I have just gone over, and which usually constitute the advice given at the first visit, are as important as any advice which is given to the patient during the progress of the attack.

I confine myself to this treatment for one week or ten days. I used to begin injections early, and this is often urged by patients. The more carefully I have observed cases, the more convinced I have been that it is a mistake to begin injections before the height of the inflammatory action has subsided. I now rarely give anything in the way of local treatment during the first week or ten days.

(To be continued.)

Hospital Reports.

A CLINICAL LECTURE DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

BY WILLIAM PEPPER, M. D., LL. D.,

Provost and Professor of Theory and Practice of Medicine in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M. D.

Treatment of Hysteria: Amyloid Degeneration of the Liver, Spleen, and Kidneys: Treatment of Incipient Phthisis.

GENTLEMEN: I wish, in the first place, to give you the further history of the hysterical girl who was before you in a state of convulsion and coma at the last lecture. As you will remember, I applied the actual cautery to the spine twice. This she bore very well without moving, unless there was a slight increase of the convulsive movements following the application. After being taken to the ward, she continued to have the severe spasm of the muscles of the globes of the eye and the rhythmical convulsions affecting the diaphragm and abdominal and trunkal muscles. These, however, did not extend to the features nor to the extremities. An enema of chloral and bromide was given to quiet her through the night. The next day, the 1st of February, on suddenly raising the eye-lids, the balls were found in their normal position, but the eyes were instantly drawn inward to such an extent that only the whites were visible, the irides being completely hidden. She had several convulsive seizures during the day, but the greater part of the time lay in a stupor. That evening an expedient, which had been successful on previous occasions in rousing her from this condition, namely, striking the face sharply with a towel which had been dipped in ice-water, was tried. This, however, produced no response. A strong electrical current was applied, and although this seemed to arouse her to a certain extent, it did not completely bring her out of the comatose condition. She now began to vomit bright blood to the extent of a few ounces. This blood was liquid and distinctly vomited. This is not the first occasion on which I have seen this patient, for she has been in the Philadelphia Hospital with similar attacks, and there she has had repeated hæmatemesis. This was shown not to be vicarious, as menstruation was regular, and the bleeding occurred at other times than at menstruation. An explanation of the hæmatemesis was found in the fact

that this girl would lacerate the membrane of the pharynx and of the nose and swallow the blood, which was afterwards vomited. On the present occasion, we cannot be positive that the blood was from this source. It was liquid, bright red in color, and small in quantity. It is quite possible that this girl, like so many of these anæmic subjects have some slight ulceration of the stomach; but bearing in mind her previous history, it is not surprising that we should suspect that this hæmatemesis had a spurious origin. Still she appeared to be in such a stupid, comatose condition, and was so closely watched that it seems scarcely possible that she could have provoked this bleeding.

The application of the electrical current, as has been said, did not bring her out of the coma, and we, therefore, a little later, used a stronger current, with the external use of ice-water. After standing this for some time, she abruptly jumped out of bed and begged to be let alone, promising to have no more attacks if nothing more were done.

This would seem to indicate that through the whole course of this seizure, lasting forty-eight hours, during which she had swallowed nothing, this girl, from some morbid determination of will, remained in this apparently comatose condition, and produced many of these convulsive movements at will. I do not regard this as the true explanation of the case. Undoubtedly there is a very intense vicious element in this girl's case. Her life is a vicious one, and her nature is depraved and perverted in every possible manner. Her will power is unquestionably lost, but I do not consider that she was purely shamming all the time she was in the condition which has been described. When the severe stimuli which I have mentioned were applied, and her nervous system aroused to a certain extent, she was able to control the manifestations. At the time that she passed into this condition, however, I think that her mind and her will were in such a depressed and morbid condition that she could not have prevented the onset of these symptoms. The patient passed into this condition without being able to prevent it, but under the influence of powerful moral and mental effects she is able to control the manifestations. This problem will frequently be encountered, and you will decide in favor of the mere imposture, or the true disease, or the blending of the two, by your judgment of the nature of the patient, the character of the symptoms, and the character of the remedy required to arrest them. If you adopt the harsh course of considering all these cases as mere imposters or maligners, you will often commit an injustice, and will often fail to effect a permanent cure.

The day following the application of the electrical current, there was a slight return of the convulsive attacks. She allowed herself to be fed. The following day there was a little return of the convulsive movements and a tendency to fall into a stupid condition, and it was necessary to fillip her with a wet towel. She, however, ate heartily. On February 4th she was entirely rational, with no further return of the symptoms. From the 4th to the 10th she appeared to be perfectly well, and was discharged on that day.

We have her history extending over many years, giving account of several of these attacks, and I am sure that we have not yet seen the end of this case; for she returns to the disturbing causes, which are certain to bring a return of the symptoms. If that girl could be taken from all her surroundings, put under discipline, treated kindly as long as she exerted herself to do well, kept at steady work, and treated with proper severity as soon as the symptoms began to appear, and if treatment were directed to relieving the irritability of the spine and nervous centres, and to invigorating the nervous tone, I think that in a year or so she could be entirely cured, and made a rational, healthy girl. Drugs alone will not do this, nor in private practice are drugs alone sufficient. There is always some moral defect. Such patients are excessive masturbators, or they have some concealed trick or vice which you cannot get at, but which lies at the root of the nervous disturbance and which keeps the patient weak and depressed; and until you extract the truth and are able to correct the fault, your bromides, chloral, cocoa, caffein, or anything else, will fail to do good. Or there may be some severe source of reflex irritation, such as disease of the ovaries. No case of this kind can be treated successfully with drugs alone, but it is necessary to regulate the whole course of the patient's life, bring her under suitable moral influences, and if there are physical defects to remove them.

Amyloid Degeneration of the Liver, Spleen, and Kidneys, with Chronic Interstitial Nephritis.

I have here the specimens from a patient admitted two weeks ago, and who died yesterday. He was admitted with symptoms of organic disease of the kidneys. The history of the case is briefly as follows: R. V., aged 20. His father and mother died when he was young, but he does not know from what cause. He has two sisters, both in good health. When five years of age he was attacked with disease of the right hip-joint, and abscesses formed and discharged for two years. The hip was excised when he was seven years old. Since then fistulæ have opened at different times around the leg and in the perineum. We have then a history of old-standing scrofulous bone disease, with long-standing suppurating discharges.

Last July he noticed, for the first time, œdema of the right leg, and shortly afterwards the other leg became swollen and the face became puffy, and then ascites made its appearance. At the same time he began to pass water more frequently, and the urine was pale, clear, and copious.

When admitted he was very pale, but not much emaciated; the skin was harsh and dry, and in places covered with scales. A large cicatrix was found on the neck, which was apparently due to the suppuration of scrofulous glands. Several cicatrices were found in the region of the hip-joint. At that time there was a sinus opening in the perineum, and discharging a large quantity of unhealthy pus daily.

On examination, the lungs were found to be resonant, the respiratory murmur strong and slightly harsh. Posteriorly there was slight puerile respiration, prolonged expiration. There was no cough.

The heart was weak, and beating 120 per min-

ute. There was no murmur, and the apex was in its normal position.

The extent of liver dullness was not increased. There was some ascites. The urine passed measured between 70 and 80 ounces per day. Its specific gravity was 1012, but the amount of urea was not determined. There was a tendency to vomit, which had been present for several weeks, but there was not much nausea. There was some headache, and a good deal of complaint of pains in the back and limbs. There was dyspnœa, but no asthma, and the dyspnœa was greatly increased by exertion. The urine contained a large quantity of albumen, but no casts were found in the examination of two slides. The œdema increased, the pulse grew weaker, and he continued to complain of pain. Although the urine continued free, a peculiar urinous odor arose from the patient's body and breath. The respirations increased in frequency, and the skin kept harsh and dry. He gradually grew weaker, and died yesterday from progressive cardiac failure, associated with evidences of uræmia, despite the fact that the urine continued free to the end.

Here then we have a most typical case of chronic Bright's disease, such a case as is often met with, exhibiting circumstances under which organic disease of the kidney is very apt to arise. Let us for a moment consider the clinical aspects of the case, and determine to what form of Bright's disease they point. It evidently has not followed an acute attack, for it has been insidious and chronic from the start. Chronic interstitial nephritis and amyloid degeneration of the kidney are especially apt to begin in this way. Tubular nephritis more frequently begins with acute symptoms, although it may also begin as a chronic affection, and run a slow, latent course. Further, this patient presented exactly the conditions which favor the development of amyloid degeneration, viz., intense scrofula and prolonged suppuration connected with bone. So that, *a priori*, we should be disposed to think that he had amyloid kidneys.

Amyloid disease of the kidneys is usually associated with amyloid disease of the liver, spleen, and mucous membrane of the stomach and bowels, so that enlargement of the liver and spleen, and marked disturbance of the stomach and gastro-intestinal canal functions, are often present in amyloid degeneration of the kidneys. In this case the liver as percussed before death did not seem to be enlarged. The spleen was enlarged, and there was marked disturbance of digestion, and particularly was there vomiting. In amyloid disease of the kidneys, the urine is copious, pale, and clear throughout the course of the case until towards the close or until the very close. So in contracted kidney, the urine is pale; clear, and copious. There is polyuria in both these affections. In amyloid disease, the specific gravity is often higher than in interstitial nephritis, and there is apt to be more albumen and more tube casts, which are hyaline in character. In granular contracted kidney, the urine is of low specific gravity, albumen is scanty or moderate, and small hyaline tube-casts are found in small numbers. In amyloid kidneys, the dropsy is apt to be comparatively early and quite extensive, despite the free secretion of urine. Œdema, ascites, and hydrothorax, may all occur while the patient is passing seventy or eighty ounces of urine. In chronic granular kidney, dropsy is not so apt to occur, or appears later, and may not be present throughout the whole course of the case.

In this case the symptoms were mixed. There was no enlargement of the liver. There was enlargement of the spleen. The amount of albumen was only moderate. Dropsy made its appearance eight months ago, became marked, and was followed by puffiness of the face and ascites. On the whole the evidence is in favor of amyloid degeneration, although there is not unlikely some contraction of the kidneys.

Another point to which I should have referred, is in connection with the heart. In amyloid degeneration, the heart does not undergo hypertrophy nearly as often, nor to the extent that takes place in chronic contracted kidney. In the present case there was not much disturbance of the heart, as shown by percussion and the position of the apex beat.

Let us now turn to the post-mortem results. Taking the lungs first, we learn that the left lung had a few adhesions, but the right lung was free from adhesions. There was some recent pleurisy uniting the pleura with the pericardium. Both lungs show small nodules at the apices about the size of a filbert, with secondary tubercles in the neighborhood. These are less marked on the left side than on the right, and on neither side have they extended very deep.

The heart is not hypertrophied, and the valves are almost entirely healthy. There is a small pericardial adhesion near the base, with a little collection of fluid in the pericardial sac.

The liver weighs three pounds and one ounce, and is therefore about normal in weight. It is, however, hard and firm, and has a bacony feel. The application of iodine shows the amyloid reaction.

The spleen weighs fifteen ounces, and is therefore four times its natural weight. There has been much capsular inflammation, and there are firm nodules on the peritoneum, which is much thickened. The pulp of the spleen is firm and slightly pale, but it is not the typical sago spleen found in amyloid degeneration. It gives a marked reaction with iodine.

The kidneys are of about the normal size, but hard, and firm, and dense. The capsule is not much thickened, but it is closely adherent to the surface of the organ, which is slightly roughened. When the capsule is removed, little pieces of kidney structure come with it, leaving a slightly granular surface, characteristic of a moderate degree of chronic interstitial nephritis. The cortex is a little diminished, and presents a glistening, waxy appearance. It shows a marked reaction with iodine.

The supra-renal bodies are of normal size, but hard. The pancreas is hard and dense.

In these kidneys there is a moderate amount of interstitial change, with a high degree of amyloid degeneration. The typical amyloid kidney is rather larger than normal, and smooth. Its capsule is not affected, and it strips off readily, leaving a smooth surface. This capsule, as I have shown you, does not strip off readily, and does not leave a smooth surface. Here there is a com-

bination of amyloid degeneration with interstitial inflammation of the kidney, and this is not an uncommon combination.

Incipient Phthisis—Treatment.

I showed you on a former occasion this young woman in a group of cases of phthisis. She came with a rather bad family history and unmistakable symptoms of disease. Since she was last before you her improvement has been satisfactory. Not only has the general condition improved, but the physical signs are much better. These signs were unmistakable as to the existence of organic disease at the apex.

The history of the patient is this: She is one of a large family of children, most of whom are healthy and show no disposition to lung trouble. So far as can be ascertained, the place where she lives is healthy. She attributes the trouble in the chest to catching cold from want of care in dress and exposure. She caught cold and paid no attention to it. This was repeated, and finally an organic process was established in the upper part of the lung. She never raised any blood, but ran down in flesh, and when she came here weighed only 83 pounds. She had some dysmenorrhœa, with scanty flow, but still at regular times.

Physical examination of the chest showed impaired resonance at the left apex, prolonged expiration and harsh inspiration. Expiration was blowing in character,. Crackling rales were distinctly audible on deep inspiration, particularly after coughing. There was also increased vocal fremitus and vocal resonance at the left apex. At the right apex there was rather exaggerated respiratory murmur and a few crackling sounds. The other portions of the lungs were healthy, and the heart was normal. The physical signs then indicated 'partial consolidation in spots at the left apex, and that the alveoli were filled with an exudation which was slowly beginning to soften. There was cough and morning expectoration. There was some rise of temperature in the evenings, but no night-sweats.

She has now been in Philadelphia for five months. When she first came under our care, a careful revision of her habits were made, so that her exercise, diet, and dress were carefully regulated. Counter-irritation with blisters was employed over the left apex. and later by milder applications of iodine, and occasionally with iodine, to which a small proportion of croton oil had been added. Internally she was first given Churchill's syrup of the hypophosphites, and later nux vomica was added to this. She had suffered considerably with neuralgic headache, but in a course of a month or two the tendency to this began to diminish and she had begun to improve. At this time Fowler's solution was added to the hypophosphites. This was continued one month, when it became necessary to stop the Fowler's solution, and she was given a pill of arsenic, iron, and quinine, and a compound solution of acid phosphates, containing dilute phosphoric acid. During all this time she continued to gain.

At one time she had a little attack of laryngitis, for which she took lozenges of muriate of ammonia and a cough mixture containing muriate of ammonia. This is the only time that she has taken any remedies for cough. While taking these the pill of iron, arsenic, and quinine, was stopped, but she continued the acid phosphates, and for a time took a small amount of brandy and glycerine. During January, we returned to the compound pill of arsenic. iron, and quinine. By the first of this month (February), her digestion was so much improved that we ventured to give cod-liver oil with lime, and stopped the acid phosphates. This she is now taking.

During the time that she has been under treatment, we have paid the strictest attention to every detail of hygienic management. The change of climate has unquestionably had a good effect. The treatment has in the first place been directed to maintaining counter-irritation over the affected spot, and in the second place to promoting the general health and nutrition, avoiding specific remedies, and using those which would relieve the anæmia and promote digestion. We gave iron and arsenic for the anæmia, varying the form as the stomach wearied of this or that preparation. At times these were associated with vegetable tonics, as quinine and nux vomica, with the object of stimulating digestion. They were also combined with nutrients, as the hypophosphites in different forms, and with dilute phosphoric acid, which is a valuable tonic, and now we are giving cod-liver oil. Only for a few weeks, and then on account of an intercurrent laryngeal trouble, did we give anything that could be called a cough mixture.

What has been the result of this treatment? In the first place, there has been a marked gain in weight. Five months ago she weighed 85 pounds. She now weighs 100 pounds. Previous to this, her highest weight was 98 pounds. Her flesh is solid and firm. She has made a great deal of blood, and her lips are no longer pale. Her pulse has become full and strong. The menstruation has become freer, and is now normal. The digestion is good, and it bears the cod-liver oil well. The most gratifying feature of the case however is the fact that parri passu with this improvement in the general condition, there has been a disappearance of the local disease. Not only have we had such a temporary improvement in the general condition as constantly occurs in the course of catarrhal disease, but we have had a steady improvement in the local disease. At the present time the most careful examination fails to show any indications of trouble at the right apex, the respiratory murmur being soft and normal. On the left side, there is no appreciable difference in the percussion resonance. There is no alteration in the vocal fremitus and resonance, and only after hard coughing or deep inspiration are heard a few small crackling rales. The blowing expiration, mucous rales, and other evidences of disease, have gradually passed away. I have no hesitation in saying that if the favorable influences under which this improvement has taken place are continued for five months longer, the recovery will be complete, and we shall have a case of what would commonly be called incipient phthisis, completely cured. I, however, do not believe that the girl had any phthisis at all. I do not use the word phthisis until there is actual destructive process established in the lung. I do not regard a case beginning with consolidation of the apex as tubercu-

lous from the beginning, as a specific affection destined to run a progressive specific course. I think that in many of these cases the process is a local inflammatory one, chiefly catarrhal, and that there is a stage in which the ordinary influences which control such inflammatory processes in other situations, will effect a complete cure. I know that in some oft these cases, where the constitutional tendency to tuberculosis is very strong, tubercles are present almost from the beginning; but this does not alter the fundamental truth that many of these cases which end in phthisis have an incipient, purely inflammatory stage, in which they are very much under the influence of appropriate treatment, dietetic, hygienic, and medicinal. In this stage absolute cures can be effected; but it is only in favorable cases and when the disease is seen at an early stage, that this result can be obtained.

This girl has recovered from what was a most serious and apparently firmly established disease of the left apex, with slight trouble at the right apex. This is not an exceptional case, for I have seen this happen often. Unfortunately we do not get these cases early enough, nor are we willing to exert our authority enough, nor are patients submissive enough, to allow the treatment to produce its legitimate results. Here everything has conspired to favor this satisfactroy result.

I hope that you will not regard all these cases as phthisis. They are threatened with phthisis. This girl, no doubt, would have had phthisis today if this trouble had been neglected, and there would have been softening and the formation of small cavities; but here the process has been arrested, and absorption and resolution is going on satisfactorily. In this affection there is the strongest liability to relapse. Our care and the details of treatment cannot be relaxed until the cure is absolute, the system is hardened, and the lung thoroughly restored, with all its powers of resistance. I shall in the spring direct that this girl be removed to some dry and elevated country place, where she will be able to have plenty of fresh air and outdoor exercise.

The treatment as outlined, with counter irritation, will be continued. The pulmonary gymnastics which she has practiced will be continued, and later on I shall take the opportunity of again bringing her before you.

Medical Societies.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting, April 24, 1885.

In the absence of the President and Vice-President, Dr. Charles K. Mills oocupied the chair.

Dr. Charles P. Turner gave the report of a case radically cured of anchylosis after articular injury and synovitis. The patient was in the cavalry service of the rebellion; in 1864, during a melée, he was pressed upon by a soldier, and received a severe blow upon the right knee; he remained in the service, though his movements were somewhat impaired. After the war was over he came to Philadelphia; his knee caused him considerable annoyance; he was always conscious of the joint—it had a tired, aching feeling; there was very little swelling; on motion, the dry, crackling sound of eburnation. Still, he was not troubled enough to resort to medical treatment.

In the fall of 1880, in getting over a fence, he struck the patella of the right knee, and in putting that foot over the fence found that he had lost control of the limb, and fell heavily to the ground. A sharp attack of synovitis developed.

I first saw him in June, 1881. Found him hobbling around, with considerable pain; the joint was swelled, and patella elevated. The joint was blistered, one blister about the size of a silver dollar being put on at a time; soon following this by another one—in this way encircling the joint so as to keep up the effect of the cantharides. Some benefit was derived from this treatment, and it was kept up until August, when I went away for my summer vacation, and left the patient in charge of Dr. Willard; he put the part completely at rest by encasing it in a plaster bandage. On my return, it was decided to let the bandage remain for three months. On its removal, we found the joint anchylosed, with considerable inflammation still remaining. The joint was then treated by ordinary roller-bandaging and counter-irritation; on the removal of the bandage, at intervals, some medicinal application was made, as liniment aconit., unguent hydrarg., tinct. iodin., or a blister, going from one to the other in rotation; but the main treatment was the persistent use of iodine. The inflammation continued with more or less severity; every motion was painful, and the patient was obliged to use crutches. As time passed on, the inflammation slowly subsided, and in January, 1884, the patient was pronounced cured, as far as that was concerned, but with a stiff joint. Firm bandaging was kept up for some time; then an elastic knee-cap was put on.

In May, 1884, I began the use of electricity, with the hope of restoring some motion to the joint, and a strong current was used three times a week.

The joint was perfectly immovable, and it was not until about the fifth application that any motion was noticed, then it was hardly perceptible; after that a little was gained at each application. In the course of the summer (some time in July) the improvement was so great that he could bend his knee to a right angle. The applications of electricity, kept up to the present time, are now to be discontinued.

(The patient was then exhibited, and found to have perfect motion of the joint; in comparing the two knees no difference was observed in their contour, except a slight thickening on the inner side of the one which had been affected.)

The *five* principal points of interest in the case are:

1. The articular disease of over sixteen years' duration.
2. Synovial invasion, passing from the acute to the chronic stage.
3. Anchylosis of the joint, brought about by the splint.
4. Persistence of inflammation, after anchylosis, with gradual cure.
5. The restoration of mobility, brought about by a powerful faradic current, applied at frequent intervals for nearly a year.

In the discussion, Dr. Susan Stackhouse asked if massage had been used.

Dr. Turner replied that it had, but was useless until after the treatment by electricity. Some counter-irritant was used every time the bandage was changed. Bandaging was discontinued entirely about a year ago.

Dr. A. Victoria Scott asked why electricity was not used earlier.

Dr. Turner replied that he did not consider the use of electricity safe while there was any acute inflammation existing, especially about joints.

Dr. Scott wished to know how the current was applied.

Dr. Turner: "The heel of the affected limb was placed in a shallow vessel of warm water. The positive pole was put in the water, the negative pole was applied to the patella, first on one side, then on the other; also along the course of atrophied muscles of the entire limb. At first it was exceedingly painful. A seance lasted from one-half to three-quarters of an hour. In order to remove pain with the battery, place the negative pole in the water, the positive on the affected part. To restore mobility, reverse position of the two poles."

Dr. Frances E. White asked if the muscles had atrophied.

Dr. Turner replied that they were somewhat atrophied, but not so much as we would have thought.

Dr. Scott asked Dr. Mills if he would have been afraid to use electricity in this case during the acute stage.

Dr. Mills, in reply, said that he did not commonly use electricity in the acute stage; it is more beneficial in the chronic. In this case it seemed to him that the successful result was largely due to the experimental movements and the improved nutrition of the muscles, brought about by the electricity. He believed, however, that some direct good to the joint had been derived from the electricity.

Dr. Turner said that he did not attribute the marked results to passive motion, although tried faithfully; for sometimes an inch or more would be gained in the distance the joint could be moved immediately after an application of the battery—so he felt inclined to attribute the result mainly to the electricity. "Passive motion undoubtedly is an important factor in these cases, but it was tried repeatedly before using the battery, and without the slightest apparent result, except to produce pain and threaten a return of inflammation. Etherization and forcible flexure were not attempted, as the patient strenuously objected to it. The patient himself attributes his cure entirely to electricity."

Dr. Scott asked in regard to the use of electricity in acute rheumatism.

Dr. Turner said that he had never used it in acute rheumatism.

Dr. Scott spoke of having used the interrupted and continuous currents, alternately, on herself one day when confined to the house with acute rheumatism; the next day she was able to be out. She said that she had often applied electricity to a commencing felon, and after an hour's application, if pus had not formed, the flesh had become soft and corrugated, and the trouble was gone. In pain of the cellular tissue about a fibroid tumor, on the application of electricity the pain is often relieved and the tumor goes down.

Next came a paper on "A Few Clinical Notes on the Narcotics used among the Insane," by Dr. Rebecca L. Hunt, assistant physician at the Insane Asylum of Norristown, Pa. "The chief reason for the use of sedatives among the insane is to quiet excitement. As a rule, the sedatives which are best known to the practitioner are not repairers of tissue, but produce tissue waste. Therapeutists have yet to find a good, reliable drug which will quiet maniacal outbursts, and at the same time not interfere with the functions. The most used are, chloral, bromides, hyoscyamine, paraldehyde, conium, ergot, and digitalis.

Chloral is chiefly used in cases of puerperal mania. As an habitual narcotic in these cases, it makes the patient pale and depressed, and is unsafe where there is a heart lesion. The bromides prolong and sustain the effects of chloral, and the patient will forget her anxiety and become quiet. The period of mental equilibrium so produced may last for twelve hours.

Hyoscyamine given in a dose of grain one-twelfth, is a hypnotic, and generally takes effect in about thirty minutes. The muscular system is relaxed, the pupils are widely dilated, and the surface of the body is flushed. This drug will interrupt the wildest excitement, and give a quiet night; but this seeming calm is purchased at the expense of depression the next day. The entire alimentary canal is disturbed; the tongue is heavily coated; the teeth covered with a thick, gummy substance; the lips swollen, cracked, and often bleeding; great thirst and dryness of the mucous membrane, and constipation. Hyoscyamine can be given hypodermically, and may be used when other drugs are refused—a point to be considered.

Paraldehyde promises to be a drug of value in treating the insomnia of some cases among the insane. It is a colorless, heavy liquid, with a disagreeable, penetrating odor. It is best administered in an alcoholic menstruum. At this hospital numerous experiments have been made with volatile oils, by which we hoped to disguise its taste, but without success. The formula which is at present used contains alcohol, glycerine, and orange. The beginning dose is ℥ xxv., this to be repeated in an hour if sleep does not follow the first dose; ℥ c. may be given without any unpleasant effects. The patient awakens from what might properly be called a slumber, it is so natural and refreshing. Being eliminated by the lungs, the breath smells of the drug; however, patients do not seem to complain of this.

Conium is used at this hospital in the form of the fluid extract, with very good results. For epileptics, for whom the bromides do not seem to have the desired effect, gtt. ij. of the fluid ext. of conium are given t. i. d. This is increased to gtt. x., t. i. d., and, in combination with sodium bromide, has checked epileptic fits, and diminished them from *seven* daily to *one* in six months. In the meantime the physical health improves and the mind clears.

Ergot and the bromides are successfully used in combination where there is severe recurrent headache, due to disease within the cranium, or sim-

ple restlessness with headache. A notable case is that of a woman aged forty-five years who is suffering from dementia, and is seldom free from pain in the head unless under this treatment.

Digitalis is often used in the same combination.

The above-read facts and results of treatment at this hospital do not offer anything new, but simply state, in an abbreviated way, the results of the narcotic, or excitement-checking means, for producing the desired end.

In opening the discussion, Dr. Mills said that he had observed the use of hyoscyamine at Norristown and in the Philadelphia Hospital, and the results have been good, usually. The hydrobromate of hyoscine is better in some respects; it is more likely to be certain in its effects. In the Philadelphia Hospital it is generally used hypodermically; from $\frac{1}{100}$ to $\frac{1}{72}$ of a grain can be given. The dry can be given in solution, by the mouth, however, as it is absolutely tasteless. In acute mania, if the patient be violent, it is well to resort to conium, fld. ext., ♏x.-xv., given frequently; then, as the patient grows more quiet, ♏v.-x.

Dr. Frances E. White remarked that it was difficult to understand why sedatives should produce tissue waste. They should, rather, by allaying nervous irritation, check the waste that ensues on excitement and nervous irritability.

Dr. A. Victoria Scott wished to know for what length of time conium could be administered.

Dr. Mills replied that it might be given for a month with care; that it seemed to do best in certain conditions of great motor excitement. The patient must be well fed while taking this or any other drug used in mania.

Mary Willits, M. D.,
5107 *Germantown ave.* *Reporting Secretary.*

Editorial Department.

Periscope.

Glycerinum Acidi Carbolici in Acute Earache.

Dr. H. Bendelack Hewetson thus writes in the *Lancet*, April 18:

Of late years the use in various forms of solution of carbolic acid has been so universally prevalent in modern antiseptic surgery that many, as it were, hidden virtues have, by constant familiarity with the drug, become patent, as well as that the cautionary mirages which naturally arise on the introduction of a new drug have paled into insignificance before the light of experience. The anæsthetic properties of the drug are now much more fully understood and appreciated than they were some few years ago, although a solution of carbolic acid, short of being caustic, was well known to have local anæsthetic as well as antiseptic properties. Any surgeon who has worked for a long time at an operation such as ovariotomy, for instance, must remember this lack of tactile power when he went to his next meal. I myself have frequently dropped my glass, my tactile corpuscles having becoming temporarily and locally anæsthetized from constant immersion in the solution of carbolic acid which is used for instruments. In nearly all operations (the removal of a breast, for instance,) the glycerinum acidi carbolici is applied to the wound to stop the after-smarting, and this it does effectually. Then arose the application of the glycerinum acidi carbolici to the exposed nerve in toothache. The relief is absolutely instantaneous if the tooth-pulp is exposed, the patient passing from the severest pain to that of a state of bliss, which all testify to who have experienced relief from toothache. I must here, in passing, just allude to the fact that when earache is due to toothache, which it is in a large number of cases, this application of the glycerine and carbolic acid cures the earache by relieving the toothache.

It is now about seven years since a patient came to me saying that his little boy of five years of age had, within the previous three hours, developed acute earache, and that his temperature was above 100° F. The temperature had been taken by his mother, and was rising. The thought occurred to me, why not inject glycerine and carbolic acid into the ears, as it was evidently a case of inflammation of the middle ear, which would eventually end in perforation and relief, as it had in this child done several times before. I injected this solution of carbolic acid and glycerine, and, to my great delight, it acted as in toothache, almost instantly relieving the acute pain. This was done at three in the afternoon, and the next morning the boy was perfectly well, and heard nearly naturally, though not quite, as he still had a cold. The tympanum never became perforated, as it had done on previous occasions, and the temperature rapidly fell to normal. This is a typical case, and I may say that I have repeated it times without number in the same way, both in children and adults—that is, in earache and in catarrhal otitis. In all cases of this kind, at whatever stage it is applied for earache, it invariably stops the pain; and I feel sure that in many cases, even when perforation seemed imminent, the relief from the pain diminished the tension, and by its strong antiphlogistic as well as anæsthetic power perforation has been avoided. If an earache returns, as it does sometimes, where a perforation has taken place and has again closed, the application of the glycerine and carbolic acid gives great relief, and stops the tendency to recurrence to the same thing in some cases, but not in all, although it always relieves pain, and thus constitutional disturbance. In cases of earache from periostitis, either in cases of chronic otorrhœa or in uncomplicated cases of inflammation of the external auditory meatus, the relief to the pain is not so rapid; but if the carbolic acid and glycerine be allowed to remain in the meatus, then relief from pain is obtained in from ten to thirty minutes. It occasionally returns in these cases, when the solution can be reapplied with renewed benefit. By this means I am convinced,

by a large experience extending over some years, that if the treatment is used early, perforation of the tympanum can be stayed in many cases. Of course, the tendency to catarrh, or other causes which make a patient prone to otitis, is not the object of this paper, nor also is the after-treatment of such cases where the otitis is got rid of. I am dealing only and solely with earache, and the circumstances immediately surrounding it. I may say that I am not only relating my own experience of the treatment; but, in consequence of a paper which I read before the Yorkshire Medical Society, it has been quite generally used by medical men in the north of England who have reported their experience to me. There is one way in which it may fail to relieve pain at once, and that is in case it is poured too quickly into the external auditory meatus, when the patient has his head aside, with lobe of the ear in its natural position. In this way the air cannot escape sufficiently freely, and a bubble of air prevents the fluid from reaching the bottom of the meatus. The proper way is to draw the lobe of the ear forcibly upwards and backwards, as in syringing the ear, to straighten the entrance to the meatus, and then allow the fluid to trickle gently down one side, whilst the air escapes up the opposite side. In cases where the meatus is very swollen at its orifice, I have injected the solution up a fine elastic catheter well covered with vaseline to promote its easy passage, and in this way I have relieved earache when it could not have been alleviated except by a hypodermic injection of morphia or such means.

I have taken great pains to arrive at the best strength of carbolic acid and glycerine to attain these results, and I find that weaker solutions do not cure the pain so rapidly or effectually. If weaker solutions are used, they will be found to fail in attaining the same results, and of course stronger solutions would soon become caustic. The glycerinum acidi carbolici in this form is not strong enough to be caustic, and can be applied in severe earache when a perforation exists quite harmlessly.

I have a further suggestion to make as to the applicability of this treatment; but I am only able to support my suggestion by a few successful cases which have come under my own observation. I refer to this application as a means of checking the disastrous otitis in scarlet fever, as well as to relieve the earache in these cases. I am very hopeful on this point; for in one or two instances where I had an opportunity of applying the glycerine and carbolic acid, when a patient first complained of earache in scarlet fever, and the membrana tympani had begun to redden, the relief to pain was immediate, and no perforation took place.

I make the suggestion, and hope all who have the opportunity will try it, since one important (very important) element, I take it, to any one, much more to a patient in high fever, is the immediate relief from local pain, which must act as a beneficial element in assisting the patient through his illness.

The Atom and the Molecule.

The *Druggists' Journal* (February, 1885,) says:

These two little particles of matter stand in the way of every beginner in chemistry. Before any real progress is made in the theory of this science these miniature pieces of creation, which assume the proportion of mountains, have to be comprehended.

Doubtless the majority of students are familiar with Prof. Baker's lucid definition, that "a molecule is the smallest particle of matter into which a body can be divided without losing its identity. A group of atoms united by chemism; the smallest particle of any substance which can exist in a free or uncombined state;" that an atom is the smallest particle of simple matter which can enter into the composition of a molecule; that the relative weight of any atom referred to hydrogen as unity is its atomic weight. "It is the smallest quantity of any simple substance by weight which can take part in the formation of any chemical compound."

Although this is perhaps as clear a definition as can be given in a few words, the subject is capable of lengthy and striking delineation.

The Duke of Argyle, in a work entitled "The Unity of Nature," devotes a chapter to the discussion of the elementary constitution of matter; this fascinating writer handles the subject of molecules and atoms in his usual interesting style; so few of our readers may have the pleasure of reading the book, we for their benefit transcribe what he says upon the subject. "The word molecule has been appropriated by general agreement among chemists and physicists to those particles of matter which are the units of cohesion or of a mechanical aggregation, as distinguished from the atom, which is the unit of chemical combination."

"The molecule is a group of atoms so united that no mechanical force can shake them loose. All the mechanical forces, therefore, find molecules to be an indivisible unit, and can only deal with them as such. Chemical force alone can get at the atom. No other force can sunder the combinations into which it enters. A compound substance may undergo the most violent changes—it may be ground to dust, it may be melted into liquid, it may be dissipated into gas, and yet its molecule group of atoms will remain intact. The molecule of a compound substance, however changed in form, is still the same compound of the same elementary atoms which constituted the substance before its change. Thus the molecule of water, when driven by heat into the form of steam, is as much a chemical compound of oxygen and hydrogen as it was when it cohered with molecules more closely in the liquid form, or less closely in the solid form of ice. On the other hand the molecule of an elementary substance and the unit of its mechanical aggregation may be either a little group of its own atoms, or it may be these atoms single and alone. It will be seen, then, that the phrase "molecular constitution" is a phrase which essentially expresses, and always suggests, the idea of mere cohesion, or of mere mechanical aggregation, and of nothing else."

Of the atom the same writer remarks its relation to matter is no longer like that of a grain of sand, or of a mote of dust to the rock or to the stuff from which it has been derived. It is no longer regarded infinitely small, or as infinitely

hard and strong, or as absolutely impenetrable, or as so absolutely single as to be in itself destitute of parts. On the contrary, it is now conceived as "already quite a complete little world," as a "piece of matter of measurable dimensions, with shape, motion, and laws of action which are intelligible subjects of scientific investigation." The atoms of some particular substances in the gaseous state have been approximately counted, approximately weighed and measured, whilst the average velocity of their movements in a certain length of path has been made the subject of mathematical calculation.

In the light of chemistry, the atom comes out as the centre and the focus of energies and powers the most complicated and the most subtle that exist in nature—so complicated and so subtle, indeed, that the utmost resources of chemical and physical research are unable, as yet, to give of them anything like a complete, or even an intelligible account. In the first place, the atom is not one thing, but many things. Each of the elementary substances has its own separate atom, with its own separate properties. In the second place these properties are not absolute, but strictly relative to the corresponding properties of the atoms of other substances, which may be contiguous. Thus the atom of oxygen is totally different from the atom of carbon, and the nature of the difference consists, in so far as we can understand it at all, not only in difference of size and weight, but even more essentially in different dynamic relations of attraction which those elements bear to each other and to the atoms of other substances. Moreover, these relations of chemical attraction are curiously governed or limited by numerical laws, which have tasked the ingenuity of chemists to express in language. The power of one atom to attract to itself and to combine with a definite number of other atoms and no more, is called its "valency," and according to the number which is the limit of its power it is called bi-valent, or tri-valent, or tetra-valent. Further, these relations between one elementary atom and another have nothing to do with, or are, at least, wholly different from the relation of gravitation. In chemical force, atoms do, indeed, attract each other, but not in a manner or degree which has any reference to each other's mass. The atom of oxygen, for example, when in contact with the atom of one substance, such as nitrogen, may be absolutely passive and inert, whilst in the presence of the atom of another substance, such as hydrogen or carbon, it will manifest the most intense activity.

The peculiar nature of this activity is then dwelt upon in the same attractive style, under the head of chemical affinity, in which he portrays the mysteries involved in this department of chemistry. If our space will admit, we will refer to this in a future number.

Chronic Suppuration in the Antrum.

Dr. Morton Smale (*Brit. Med. Jour.*, April 18, 1885,) says:

During 1884, three cases of antral suppuration came under my care. They were treated somewhat differently from the method described in most text-books, and with so good a result that I think an account of the cases might be of interest. They are, in most surgeons' hands, admittedly difficult to cure, and treatment generally extends over a considerable period.

The usual treatment is to open the antral cavity freely, if possible, through the alveolus of the bicuspid or molar teeth, and teach the patient to wash out the cavity by the forcible contraction of the buccinators and orbicularis oris on a dilute disinfectant held in the mouth. I have treated many cases in this way, but always with very unsatisfactory results. I resolved, therefore, to be a little more heroic in my treatment, and instead of the dilute disinfectant, to use a powerful one. Having removed all offending teeth, with none of which the disease appeared to be connected, the cavity was freely opened through the socket of one of the teeth, and freely syringed with a ten per cent. solution of carbolic acid. The cavity was plugged with lint soaked in a twenty-five per cent. solution of carbolic acid. This was allowed to remain twenty-four hours, the opening into the mouth being closed by a plate in two cases, and by a plug of cotton-wool soaked in gum mastic in spirit in the third. This was renewed for several days after syringing the cavity with a ten per cent. solution of carbolic acid, until all fœtor (which was of the characteristic kind found in these cases) had disappeared.

From that time for about a month, the cavity was syringed every other day with a ten per cent. solution of carbolic acid, but there was no return of the fœtor. The pus, in the first instance, was full of bacteria, and had for months, in each case, been a source of great discomfort and anxiety to the patients. They looked anæmic, and were losing flesh. All appetite had gone, and they were afraid to go into society. Each case had to be treated with slight differences, but the above treatment is sufficiently accurate to apply to all. I append some notes of one of the cases.

The patient was Miss M., aged 40. Her history was good. There was no splenic taint. She was very anæmic, and much thinner than previously; had no appetite, and was always feeling sick; she had a disgusting taste in her mouth at all times, and occasionally a discharge from the nostril. There was a collection of fœtid discharge at the back of the throat every morning. She had noticed it for quite six months, and had been treated medically, but with no good result. The breath was very offensive. There was no eczema. The face had been slightly swollen several times, just under the eye. There was very little pain, except when the swelling was coming. I removed several roots of teeth, and opened the cavity through the second bicuspid socket, making the opening as large as possible. A large quantity of very fœtid pus was discharged. I syringed the cavity freely with a ten per cent. solution of carbolic acid, and plugged it with lint soaked in twenty-five per cent. solution of the same. On April 7, I removed the plug, syringed, and applied a fresh plug. There was very little pus, but still fœtor. On April 8, there was slight improvement. The treatment was continued. On April 12 she was much better; no fœtor. The plug was removed permanently. The cavity was syringed with ten per cent. solution of carbolic acid. The syringing was continued every other day for

a month. By May 20 it had healed; there was no discharge, and patient looked and felt better. On February 6, 1885, I saw Miss M.; she was then quite well.

Treatment of Eczema.

Henry J. Reynolds, M. D., Prof. of Dermatology in the College of Physicians and Surgeons of Chicago, read a paper at the Illinois State Medical Society, of which the following is an abstract:

He said an intelligent knowledge of the principles upon which treatment should be based always suggests the form of treatment that will be applicable to each case, regardless of its name or location. The pathological condition being absolutely identical in no two cases, so the treatment must always vary, and a knowledge of specific lines of treatment or combinations of drugs said to be useful, with a neglect of consideration of the principles upon which treatment should be based in each individual case, in this, as in all other diseases, is liable to mislead. Therapeutically speaking, he regards the disease as always either acute, sub-acute, or chronic, regardless of its clinical name or location, and arranges the treatment accordingly.

In the acute, as in all other acute inflammations, the great principle necessarily involved, is *rest*, which implies not only quietude of the member or part, but *rest from all irritating influences*, as scratching, irritation of lice, friction, dirt incident to the calling of the individual, too frequent washing, etc. Soothing and protecting measures, therefore, are indicated in this stage, among which may be mentioned Carron oil, poultices, etc.

In the sub-acute, as in all other stages and forms, scratching must be strictly prohibited, as it is the most fruitful of all sources of aggravation.

He uses in this and the chronic conditions (either of which may at any time develop acute symptoms and require the treatment changed accordingly) pure, impalpably fine boracic acid as a dusting powder; having first gotten rid of crusts and scales by soaking with oil and washing with soap and warm water. In the chronic, however, he uses greater stimulating measures, in the way of green soap frequently rubbed in during washing. To relieve intense itching, he has found nothing so effectual as a first-class letting alone.

He thinks bandaging and strapping advisable whenever practicable, and prefers the cotton roller to the rubber, where there is much exudation or maceration of the skin. He reports two cases of twelve and twenty years' standing respectively, of eczema rubrum of the leg associated with varicose veins and ulceration, where many remedies had been tried without success, that he cured by the application of boracic acid and bandaging, and a saline laxative internally.

He says as certain constitutional conditions predispose to the disease, and therefore necessarily aggravate or prolong it when once established, these conditions must be sought after and be corrected.

He has but little faith in the popular skin remedy, arsenic, in this or any other disease; all he knows *positively* of the remedy is that you *can* do harm with it. Chrysarobin, internally, as recommended by Stocquart, he has tried without any benefit.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——The significance of optic neuritis in disease of the middle ear is examined in a careful manner in a pamphlet by Dr. C. J. Kipp, of Newark, N. J. The results he arrives at are equally important to the ophthalmologist and the aurist.

——A pleasantly-written and prettily-printed local guide-book, entitled "The Recesses of the Rocky Mountains," may be had by sending twenty cents to box 214, Idaho Springs, Colorado. It is especially designed for invalids, and contains a quantity of information of value to them.

——According to Dr. Martin F. Coomes, of Louisville, in a pamphlet before us, there are over 100 opium-eaters in that city, each of whom consumes a daily average of nearly seven grains of morphia. His recommendation, however, that it should be made a felony to sell more than one dose of morphia without the prescription of a physician, is excessive.

——The Kansas *Law Journal*, published at Topeka, Kansas, has issued a supplement containing in pamphlet form the Kansas Prohibitory Law as amended, the Pharmacy Law, the Dentistry Law, and the Board of Health Law. Those who would wish to keep acquainted with medical legislation should send for it.

——One of the ablest students of pathological microbes is Mr. Watson Cheyne, of London. His valuable series of papers on *Bacterial Pathology* have been reprinted by the Industrial Publication Company, New York city. Price, 25 cents.

——The Annual Report of the Thomas Wilson Sanitarium for Children, of Baltimore city, under charge of Dr. Wm. D. Booker, shows that excellent charity has been doing good work, and is a model of its kind.

——The excessive overcrowding of the medical profession is well set forth in an address by Dr. E. J. Doering, of Chicago. It is startling to learn that in the United States there are at present 116 medical schools, and one physician to every 585 persons.

——The address of Dr. Ezra P. Allen, President of the Medical Society of Pennsylvania, has appeared in pamphlet form. It is upon the im-

provements in medicine and surgery during the last 40 years.

——Dr. J. C. Reeve, of Dayton, Ohio, in a paper on the delivery of the placenta, reprinted from the *Transactions* of the Ohio State Medical Society, gives more attention to the propriety of this interference than it usually receives. He observes:

"No teaching as to the delivery of the placenta can be scientific which does not direct a consideration of the character of the preceding labor; and as the character of labors varies, so must the management of the third stage. If the pains have been frequent and energetic, and the birth of the child rapid, the placenta may be delivered very soon; if the labor has been tedious, and delivery slow, or if the uterus has been exhausted by violent and long-continued effort, time must be given for the recuperation of its contractile force and nervous energy."

——Dr. Duhourcan, of Toulouse, has published a pamphlet entitled "Le Peronospora Ferrani, Agent Infectieux du Choléra et la Vaccination Cholérique," in which he advocates Dr. Ferran's method of inoculation against cholera, and gives the first history of its discovery and introduction which has reached us. It certainly deserves careful consideration, and because Dr. Ferran is not a disciple of Koch, it does not follow that his discovery is erroneous.

BOOK NOTICES.

List of Tests, Arranged in Alphabetical Order, According to the Names of the Originators. By Hans M. Wilder. 8vo., pp. 38. New York: P. W. Bedford.

The author has here arranged nearly one thousand different tests or reagents under the name of their discoverers, and with brief notes as to their uses. The convenience of a compilation of this kind will be at once obvious to every practical chemist. The labor in arranging them has been considerable, and it has been faithfully performed.

Urinary and Renal Derangements and Calculous Disorders. By Lionel S. Beale, M. D., etc. 8vo., cloth. Pp. 356. P. Blakiston, Son & Co., Philadelphia, 1885.

A Practical Treatise on Urinary and Renal Diseases, including Urinary Deposits. By Wm. Roberts, M. D., F. R. S., etc., assisted by Robert Maguire, M. D. Fourth edition; 8vo., cloth; pp. 628. Lea Bros. & Co., Philadelphia, 1885.

Although from the titles of these works they might be considered to cover the same ground, yet their treatment of the common topic of derangements of the urinary system is so different that one can with advantage study both.

Dr. Beale approaches his subject more from its chemical and microscopical, Dr. Roberts more from the symptomatic and pathological side. The bulk of the former work is devoted to the character of the urine, and what deductions its various appearances and constituents suggest; while the latter takes up one disease after another in which the urinary secretion is more or less implicated, and reaches down to that as one of the etiological or concurrent factors. It is, therefore, peculiarly instructive to read these works together. That each is, in its way, a masterpiece of careful and scholarly composition, is sufficiently assured by the distinguished names of their authors.

Hay Fever and Its Successful Treatment by Superficial Organic Alteration of the Nasal Mucous Membrane. By Charles G. Sajous, M. D. Illustrated. 8vo., pp. 103. Philadelphia: F. A. Davis.

The numerous sufferers and apparent increase of the disease sometimes called hay fever, will attach no little importance to a method which promises to perform a radical cure with no danger and little suffering. The local application of powerful alterants of the mucous surface, as glacial acetic acid, etc., is explained by Dr. Sajous, and a number of illustrative cases recorded. His volume must command the attention of those called upon to treat this heretofore intractable complaint.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M. D., F. R. C. P., etc. Fourth American from the fifth English edition, with notes and additions by Robert P. Harris, M. D. 8vo., sheep; pp. 663; illustrated. Philadelphia, Lea Bros. & Co.

The standard treatise of Playfair has met with deserved popularity in America, and the present edition is calculated to enable it to hold its ground for years to come. Not only has the author himself prepared its pages with care, but the American editor has added a number of passages bringing the material up to the latest date, especially in the matter of statistics. The various new obstetrical procedures, as the recently-devised plans for the Cæsarean operation, Hick's treatment of placenta previa, etc., are given with fullness, and their merits stated judiciously. The volume is illustrated with three plates and 201 wood-cuts, and issued in that substantial manner which characterizes the publications of the firm which places it on the market.

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LET SCIENCE BE FREE.

The strangely short-sighted action of the Pennsylvania State Medical Society in 1884, when it passed a resolution forbidding its members to furnish abstracts of their addresses to members of the medical press, was rescinded at the last meeting. That any such resolution should have been on the minutes at all, can only be explained by the prevalence of a total misunderstanding of the purposes of a scientific society.

The primary object of any such association is the dissemination of scientific knowledge, and the stimulation of the pursuit of original research. Whatever conflicts with either of these purposes is alien to the society and hostile to its ends. Nothing is more so than the limitation of publicity, than throwing trammels and obstacles in the way of the writer obtaining the largest possible circulation for his results.

A scientific society is not a business organization, to obtain a monopoly and to make money. Its spirit should be the precise contrary of that, of a publishing firm, whose only motive, whatever its pretentions may be, is ever and always only the greed of gain. Those who introduced and supported the resolution of 1884 could not divest their minds of the instincts of trade. They did not seem able to rise above the level of the shop's till. That the society, that any medical society, should feel itself entirely above the tricks and devices of tradesmen, should be recognized on all hands.

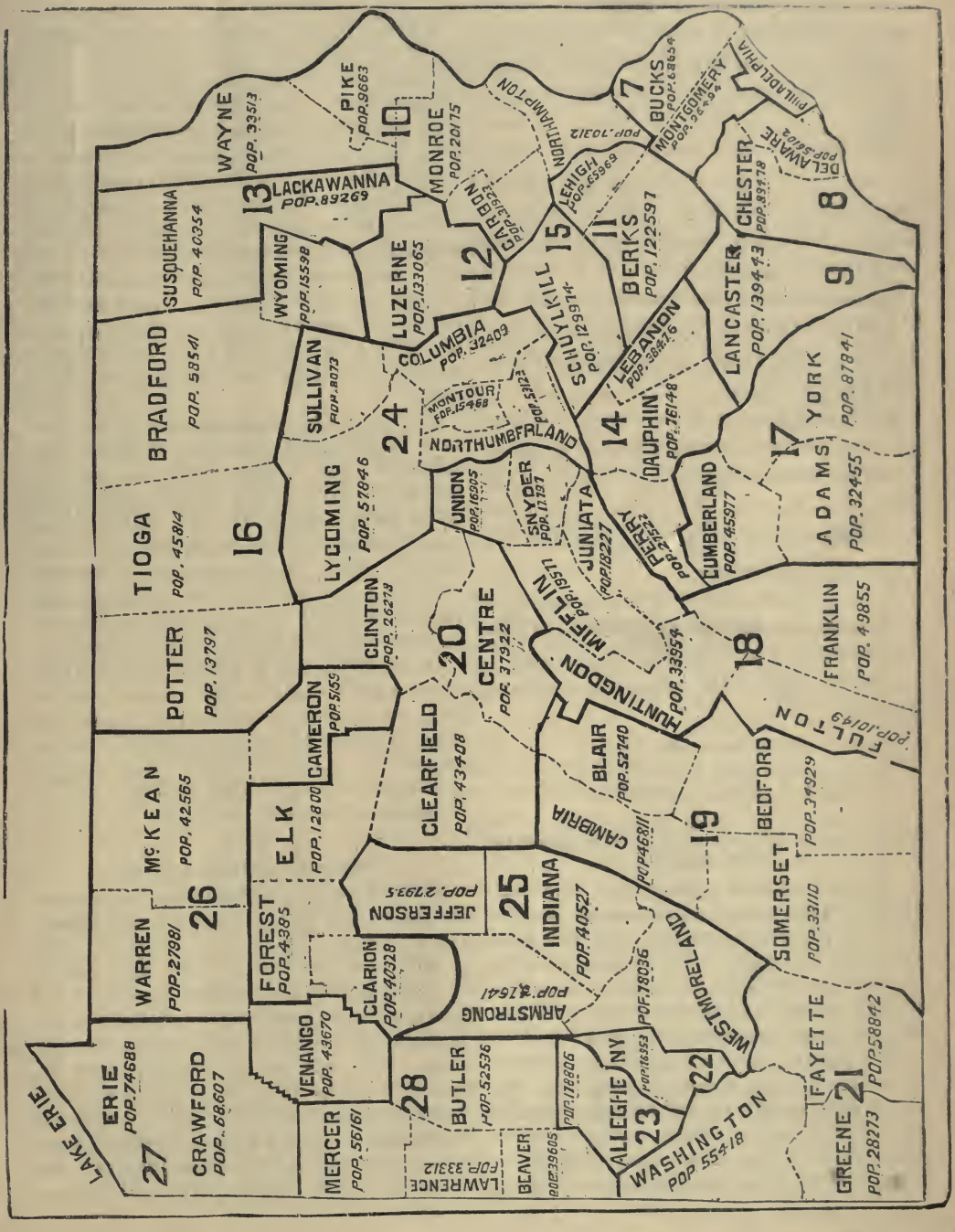
Another motive was by some imputed to them, and that is, that they were working in the interest of those journals, which, unlike the REPORTER, had not had the tact and energy to obtain early and fully, abstracts of the articles read. But so very small minds as this would indicate, we are not prepared to believe exist in that society.

The same effort, in one form or another, has been attempted by other societies. They place restrictions on those who read papers before them. Abstracts must not be furnished the medical press, they must only appear in certain journals, they must be trimmed and lopped by a committee of publication, etc., etc. Let all such trammels

on the free spirit of science be dropped; let every writer exercise the utmost freedom, and be authorized to give his observations the widest publicity possible in any way he chooses.

CITY VS. COUNTRY.

We have often adverted to the fact that is thoroughly recognized by every thinking person, that a life in the country is much more conducive to health and longevity than the crowded, unhealthy



life of an occupant of a large city. In a city every possibility of *ill* health can be found, while in the country, on the other hand, every possibility of *good* health is at our command.

The main-spring, the prime element of ill health in large cities, is the aggregation of human beings, the decomposing results of whose energies, of whose lives, tend to poison the surroundings, and to produce the seeds of disease and premature death.

This truth is such an evident *truth* that we will not waste words to demonstrate that which stands demonstrated. We have, therefore, borrowed from the *Philadelphia Times* the above cut, in order that we may appeal to the eye. Study this illustration carefully; scan each county, from big *Pike*, with but some 9,000 population, to the poor, little, insignificant space allotted to Philadelphia, with nearly a million.

"In one ear and out of the other," is a very old, but a very true saying; but, when we appeal to the eye, we appeal much more directly to the mind, to the thought and intelligence of a thinking man; therefore do we best accomplish our purposes by illustrations.

To repeat, it will be a waste of time and space to write more; study this map carefully, and realize how surely must the aggregation of communities in cities result in the perpetuation of a *dudish offspring*.

Notes and Comments.

Swallowing of Artificial Teeth; a New Method for Their Removal.

Artificial teeth have probably been often swallowed. Too hard for digestion and not provided with sharp-pointed edges, as a rule, they cause very little inconvenience. More dangerous is the swallowing of whole sets, as in such a case a plate, with all its hooks and pointed edges, has to pass through the pylorus and the ilio-cæcal valve. If it were possible, after such a plate has been inadvertently swallowed, to send some substance after it that could envelop the pointed and "hooky" plate with a material which might remove the sharp points, the greatest danger would be removed. But thus far this substance has been a desideratum unfulfilled. In the April 13, 1885, number of the *Deutsche Med. Zeit.*, however, we find a communication which, on account of the ingenuity of the procedure, and of its complete effect, is highly interesting and deserves further dissemination through the columns of the Medical and Surgical Reporter.

A dentist by the euphonious name of Geisselbrecht, in Fürth, was sent for one night by a servant girl, who, during sleep, had swallowed her artificial teeth. The set consisted of a rubber plate with four canines and two bicuspids, which plate was attached by the aid of gold clamps to the natural teeth. On examination, the neck of the girl was found to be swollen and painful to the touch in the region of the larynx. The examination of the pharynx gave no result; the set had disappeared; but with the use of the œsophageal sound it could be felt. But as the plate had already passed too deeply, there was no prospect of its being extracted, and G. pushed it with the sound into the stomach through the cardiac orifice.

Now comes the interesting part of the procedure. That the plate might pass on through the intestinal canal without injuring the latter, G. induced the girl to swallow a lot of cotton thread (spool cotton), which was first cut into small pieces and incorporated in the white of an egg beaten to snow. The intention was to have the threads, steeped into the white of the egg, wrap themselves around the sharp points of the plate and thus prevent their injuring the intestines.

The result has been a brilliant one; four days later the girl brought the ominous plate, and the latter was found to be completely enveloped, overspun, as it were, by the cotton threads. The patiet said that she had no pain, or any other inconvenience either, while the plate was resting in the bowels or during its passage out.

Complicated Multiple Sclerosis.

Besides hysteria, constitutional syphilis probably presents the most varying pictures of disease. Dr. A. Rovighi (*Rivista Sperim. di frenat.*, 1885, p. 227,) reports the case of a man aged twenty-five, who, affected with constitutional luës, had been suffering for some time from weakness in the legs, contractures, pains, paræsthesias, and trembling. Very early palsy of bladder and rectum, intense pain in the spine, and extensive bed-sores, besides deep and large ulcerations on the legs and contractions of a high degree, developed themselves. The post-mortem examination gave the following results: Spleen, liver, and kidneys

were enlarged, swollen, and myxotic foci were found in the lungs, liver, and the right kidney. In the spinal cord multiple large gray spots were met, disseminated, especially, in the lateral and posterior columns, while sclerotic spots of smaller size were discovered in the centre of the large gray patches. In Goll's columns an ascending secondary degeneration was demonstrated, and in the lateral columns a descending one, which commenced in the dorsal portion, when a large gray patch seemed to be the starting point. This morbid lesion in the lowest portion of the dorsal cord is comparatively rare in constitutional syphilis, which is the cause that the palsy of bladder and rectum, so rarely met with in specific cases of spinal disease, except in the last stages, and the extensive bed-sores, made so early an appearance in the case reported.

We again note here a fact, so often observed in specific cases, and so detrimental to the success of anti-syphilitic treatment, that the irreparable damage is done the moment the first symptoms appear which indicate a spinal lesion. The beginning stages of the specific inflammation do not seem to give rise to any morbid phenomena, a fact experienced with especial frequency in locomotor ataxia, where the first morbid symptom is a sure proof that the inflammation has already passed beyond the boundary of therapeutical measures. It is only when nature's own process of cure commences, *i. e.*, when as a consequence of the inflammation, cicatricial contraction takes place and produces atrophy of the medulla, that the first symptom of ataxia shows itself.

Psychical Disturbances in the Pre-Ataxic Period of Locomotor Ataxia.

In persons suffering from sclerosis of the posterior columns of the spinal cord due to syphilis, psychical symptoms often make their appearance long before the ataxia shows itself. As it may be possible, during this early period, to make some beneficial impression upon the morbid process in the cord by anti-syphilitic treatment, any increase of our knowledge of this latent time must be welcome. We look thus upon the recent article of Dr. Fournier in the *L'Encephale*, 1885, p. 641. According to his experience these early symptoms consist

1. In the disturbance of the memory. The weakness of memory but slowly develops itself, but in some cases, then generally after an apoplectic or an epileptic seizure, it suddenly shows itself. Occasionally such patients suddenly lose their memory for a short period, but it returns after 15 to 20 minutes. This symptom, when present, is a sure indication of the ataxic disease.

2. In alterations of the character. Patients change their habits and inclinations, lose their former gay spirits, and become indifferent and apathetic. Always hand in hand with this symptom appears a disturbance of the intellect. This first evinces itself as an easy fatigue in thinking, and as slowness of conception. If this trouble increases, perverted actions may be observed. At times graver psychical disturbances make their appearance, generally in the form of deliria and of melancholic states.

In conclusion, Fournier reports two cases where the tabes were accompanied by general paralysis. Here the psychical symptoms were very pronounced, and clearly preceded the ataxic symptoms. To us it seems as if the locomotor ataxia in these two cases had simply supervened upon hereditary paralysis of the insane, and thus caused a complication of the morbid symptoms. This is also proven by the fact that under anti-syphilitic treatment the ataxic symptoms ameliorated for a short time, while those due to the general paralysis mentioned continued unabated.

The Communicability of Scarlet Fever Through a Third Healthy Person.

This occurrence is so unusual that we note from the *Med. Record*, May 16, 1885, that Dr. D. R. Waggoner, of Oxford, Neb., relates the following instances in which the virus of scarlatina was evidently conveyed from the sick to the well by a third healthy person. Mrs. R—— had been visiting a sister, five of whose children had scarlet fever. She returned twenty miles to her own home, and within five days her own little girl was attacked with the disease. There had been no scarlatina in the neighborhood for months. A niece of Mrs. R——'s spent several hours with her on the day following her return. This child was also seized with the fever on the same day as Mrs. R——'s daughter, and died of it the fourth day. Dr. Waggoner attended both these cases, and Mrs. R——'s niece died in his arms. On returning home after the child's death, his little boy, as was his custom, climbed into his lap and sat on his knee for perhaps an hour. Four days later this boy was taken with scarlet fever, and his older brother four days after that. As these were the only cases in the neighborhood, it seems impossible to explain their origin except by the conveyance of the poison by a third person. Dr. Waggoner says that since this sad experience he has always worn rubber clothing in the sick-room

of a scarlet fever patient. He also relates another instance, unconnected with these cases, in which the poison was conveyed in a similar manner.

Dr. A. H. Hewetson, of St. Clairsville, O., writes that in 1873 he attended a case of scarlet fever of very severe type. The case was an imported one, the first in that locality for more than a year. While making an application to the throat, Dr. Hewetson held the little patient on his knee, and upon his return home, his own son climbed up into his lap before he had had time to remove the overcoat worn in the sick-room. Soon afterward this child was attacked with the disease, and subsequently the other children of the family suffered in like manner.

Med. & Surg. Reporter

Inhalation of Pure Air.

A patient of Dr. v. Liebig had been suffering for years from a bronchitis complicated by bronchiectasis. He had a great deal of purulent and often bloody expectoration. Notwithstanding the most careful treatment by excellent physicians, his disease gradually became so aggravated that the patient, the moment his skin received the slightest chilling by his presence in a cooler atmosphere, felt a great increase of all his morbid symptoms. Finally he conceived the idea, continually by day and night, to inhale pure air. As the result of this treatment, continued for eight months, the patient gained sixteen pounds in weight, was able once more to resume his usual occupation, and lost most of his cough, and with it all expectoration. A sudden change from a warmer to a cooler atmosphere was no longer attended by an exacerbation of the symptoms.

The *Aerztl. Trit. Bl.*, 1885, No. 4, where the case is reported, describes the apparatus used by the patient. This consists of a hollow tube, about three inches wide, and made of parchment paper, folded vertically in such a manner as the movable leather of a harmonium, thus permitting extension. The length of the tube is *ad libitum*. Its lower, which is brought in contact with the outer air, has a cylinder attached of a width of ten inches and a height of six. This cylinder, for the purpose of purifying the air, is filled with cotton wadding. The mouth-piece of the tube is provided with a valve, so arranged (as in the apparatus for inhaling nitrous oxide) that the patient can inhale only the pure air, while the air which he exhales finds its way out through the valve. The apparatus is well worth an extended trial, and is specially useful to those who cannot go to the country or seashore and there obtain a purer air.

Prolonged Gestation.

The question as to whether it is possible for gestation to be prolonged beyond the normal physiological limit has been frequently discussed and has numerous advocates on both sides of the fence. Hence, the case which Dr. L. B. Almy reports in the *New England Med. Monthly*, March 15, 1885, is worthy of note:

Mrs. W., who was under his care for uterine difficulty, menstruated on January 14, 1883. On February 11, he was sent for, and found his patient suffering from pain in the back and pelvis; but no signs of menstrual flow. He used some simple remedies for twenty-four hours, and then suspected that she might be in the family way, a thing which he did not think probable on account of her condition. Such proved to be the case, however. Quickening occurred June 1, and he naturally expected the confinement about October 21. That date came, and no signs of labor. She had fleeting pains on the 10th of November, but labor did not set in till the morning of the 21st day of November, 1883. Labor was normal until the third stage, and a girl weighing seven and a half pounds, but of extreme length, was born about 11:30 p. m. There was hour-glass contraction of the uterus with retained placenta, and the puerperal state was complicated by an attack of peritonitis, from which she fortunately recovered.

He found that there had been but one exposure during the month of January, eleven days after the commencement of menstruation, making the pregnancy continue 311 days, counting from the beginning of menstruation, or 300 days from the time of connection. The child died of pneumonia when three months old.

Tubercular Cerebellum—Cure of Tubercular Meningitis.

A girl æt. 7, had for some time shown herself remarkably clumsy in her actions and movements, and had several times fallen off her chair. Then for a month she was laid up with graver symptoms, as intense pain in the head, vertigo on rising, vomiting, constipation, besides great sensitiveness to noises. On standing she was attacked by giddiness and ataxia. The region of the facial nerve and the special senses evinced no morbid alteration. She was lying all the time with her head turned left.

Dr. L. Löwenfeld, who reports this case in the *Centrlbl. f. d. Med. Wiss.*, 1885, 15, then made a local application of iodoform ointment frequently repeated. A remarkable improvement ensued, and for a whole year the child so much recovered

that she was able to go to school. Then the former symptoms once more returned, and the child died. The left cerebellar hemisphere was found changed to a yellowish, lobular tumor, intimately adhering to the dura mater at the base, and its contents consisting of a yellowish sticky mass. Besides, there was found in this tumor a cavity containing a purulent fluid, and extending laterally into the uvula. At the base of the brain a few disseminated tubercular nodules, and in the medulla oblongata, near to the pons, a larger one was also discovered. Peculiar are the long intervals, during which the child was free from all symptoms, and the appearance of anomalies of motion ere the middle connecting portion of the cerebellum was attacked. Of great interest is the result of the treatment (local application of iodoform ointment, 4: 30,) which has recently been recommended by several writers, and which in one case has caused the complete recovery of the patient.

Marriage Amongst Blood-Relations and Epilepsy.

In the *Deutsch Med. Zeit.*, April 13, 1885, we find the following interesting communication of Dr. Klinkenberg, of Aix la Chapelle. As a result of marriage between two first cousins (children of brother and sister respectively) five children were born. Of these, three suffered from epilepsy in its gravest form and from epileptic mania, so that they had to be transferred to an institution as incurably insane. The fourth child has thus far been apparently healthy, while the fifth, a boy, had epileptic seizures from time to time until he was seven years old. He now is twelve, and has had no attack since the time mentioned. But he also suffered for a long time from diurnal and nocturnal incontinence of urine, which was finally cured by the application of the constant galvanic current. As the children were epileptic from their birth, as the family history does not indicate the least neurosis, not even neuralgia, or hysteria, or any other nervous disease, and as not only none of the parents, but also nobody in the family for generations has ever been a confirmed drunkard, there is scarcely a doubt that the epilepsy of the children is due to the blood-relation of their parents. This is the more probable, as such cases have been frequently reported.

A New Ether.

The Paris correspondent of the *Brit. Med. Jour.*, (April 25), says that M. Rabuteau has prepared a new ether—the salicylate of methyl. It is almost white, has an agreeable smell, and is almost insoluble in water. It is prepared by treating methylic alcohol by salicylic acid or sulphuric acid, or even a better formula is that of sodium-salicylate, sulphuric acid, and alcohol. It is a mono-ethyl, and therefore almost an acid, and forms salts in presence of an alkali. It colors salts of iron violet, and behaves like salicylate of soda. This ether does not produce anæsthesia. Part of the dose of salicylate of methyl is utilized in the organism, and part eliminated by the respiratory and renal organs. The vapor of salicylate of methyl is easily detected on being brought into contact with iron-perchloride.

Dr. Johnson on Microbes.

All anticipation of future knowledge and suggestions which those who come after find to be correct, have a peculiar kind of interest and are worth noting, even though the scientific basis on which they are founded may be questionable. There is an observation of Samuel Johnson's on the subject of dysentery which fairly illustrates this. In a letter to Mrs. Thrale, dated November 12, 1781, he says: "If Mr. —— will drink a great deal of water, the acrimony that corrodes his bowels will be diluted, if the cause be only acrimony; but I suspect dysenteries to be produced by animalculæ, which I know not how to kill." Johnson used the word "animalculæ;" a modern writer would say "microbes."—*N. Y. Med. Record*, June 6, 1885.

CORRESPONDENCE.

A Cylinder of Raspberry Seeds Complicating a Strangulated Hernia.

EDS. MED. AND SURG. REPORTER:—

Dr. Storkes' case of frog thighs in a hernia recalls to memory the following case: In September, 1872, Mr. H., a vegetable and fruit gardener, aged fifty-two years, who had been the subject of a reducible indirect inguinal hernia for twenty-five years, suddenly became the subject of irreducible strangulated hernia. A timely operation was performed, and a viable portion of the invaginated intestine was returned into the cavity of the abdomen. Judging from the experience of thirteen previous operations for strangulated hernia, a favorable result was prognosticated. It, however, became soon manifest that the perilous condition of the man had not been removed by the operation. All the symptoms of intestinal obstruction still existed, and continued to increase in intensity notwithstanding the means used for relief. Enteritis, peritonitis, and exhaustion soon terminated life. The autopsy revealed a cylinder of raspberry seeds, four inches in length, impacted in the intestine. This cylinder of seeds was as dry and hard and as inseparable as a cylinder of sand-

stone, every particle of moisture having been drained from it, and each seed apparently firmly cemented together into an immovable cylinder. The bold surgery of to-day in such cases, if practiced in this case, may have saved a life.

GEO. C. CATLETT, M. D.

St. Joseph, Mo., June 5, 1885.

NEWS AND MISCELLANY.

New Jersey State Medical Society.

The one hundred and nineteenth annual meeting of the New Jersey State Medical Society was called to order by P. C. Barker, M. D., of Morristown, President of the Society, in the Ocean House, Long Branch, June 9.

The meeting was opened with prayer by Stephen Wickes, M. D., of Orange, after which the report of the Committee on Organization was read, showing reports foom twelve counties.

Dr. S. H. Hunt then delivered an address of welcome on behalf of the physicians of Monmouth county.

The following persons were also present and were invited to seats as corresponding members: Prof. Pancost, Prof. Shoemaker, and Dr. Zeigler, of Philadelphia; Professor Beverly Cole, President of State Medical Society of California; Dr. Knox, of Chicago; Dr. Henry, of New York; Drs. T. D. Dunn, M. O'Hara, W. R. Hoch, A. Fricke, delegates from the Pennsylvania Medical Society. Dr. Beckwith, delegate from Medical Society of Connecticut, Dr. Anita T. Tyng, delegate from the Rhode Island Medical Society, Drs. J. P. Garnish and J. F. Arnold, delegates from the New York State Medical Association.

Minutes of last annual meeting were read and approved. The Business Committee reported as follows:

"Business Committee would report that they had deemed it wise to make a few changes in the order of business formerly adopted. It has been noticed that a great part of the time of the session is consumed by desultory discussions. The result has been the postponement of our scientific papers until members are too wearied to listen to them, or that pestered by useless controversy they seek the refreshment of out door exercise. This will explain the changes that have been made. Your committee would suggest, in order to elevate the character of our meetings as well as to promote their usefulness, that in all discussions not purely scientific, members should be held strictly to the *res gestæ*, and be allowed to speak only twice on the same subject, and then only five minutes each time."

Dr. E. S. Bushy, delegate to the Pennsylvania Medical Society, and Dr. I. N. Quinby, delegate to the American Medical Association, read their reports, which were referred to the Committee on Publication.

After announcement of the Committee on Treasurer's Account and the Nominating Committee, the Society adjourned to meet at 7:30 p. m.

EVENING SESSION, 7:30.

The Vice-President, Dr. Parrish, took the chair and called the meeting to order, and announced, as the first order of business, the reading of the President's address.

PRESIDENT'S ADDRESS.

The subject of the president's annual address was "The Present Status of the Germ Theory of Disease."

The effects of the ancient epidemics upon the world's history and the early opinions regarding contagion, and the first efforts of sanitary science to cope with the evils of ignorance and superstition that kept men filthy, were forcibly delineated. The study of ferments and fermentations suggested the germ theory of disease even in the last century, and when the formula of sugar fermentation was discovered, and the bacteria of putrefactive processes were discovered, many minds were attracted to this theory as probably giving an explanation of the causes of epidemics, and of the phenomena of contagion and infection. Pasteur's researches, and the discovery of the minute rods of the bacillus anthracis, and the careful investigations that demonstrated its causal relation to malignant pustule, were the next steps. Then followed the wonderful deductions of Lister and the revolution caused by him in surgical practice; and now we have germs without number for all forms of diseases.

The doctor then described the various methods of making cultivations in liquid and dry media, the manner of making microscopical examinations, and their reactions to various tests, chemical and physical. He described their laws of life, and the conditions favorable and unfavorable, giving a detailed description of the different varieties of micro organisms, following the classifications of Cohn. Koch's bacilli of cholera and tuberculosis were noticed, as also Ferran's recent experiments in inoculation. The recent discovery of alkaloidal poisons generated in the development of these germs, and Pasteur's vaccination for anthrax, were referred to.

The address closed with a detailed account of the effects of epidemics, and the still greater evils of the neglect of the teachings of sanitary science.

REPORT OF STANDING COMMITTEE.

Dr. T. J. Smith, the chairman of the committee, read the report. This report gave a statement of the diseases which had prevailed in the various counties of the state. Typhoid fever, measles, and scarlet fever had been quite severe in some districts—the malarial diseases much less prevalent than heretofore.

The treasurer's report was received, and referred to committee on treasurer's accounts.

Dr. E. L. Godfrey, of Camden, in behalf of the committee on medical jurisprudence, read a report, which was referred to committee on publication.

The report set forth the necessity of "experts" being called by the court instead of by parties interested in suits at court; a legislative enactment proposed by Charles G. Garrison, of the Camden bar.

About one hundred members were present at the afternoon session, a number of others arriving on the evening trains.

MORNING SESSION, 9 O'CLOCK.

The president called the meeting to order at 9 o'clock.

Dr. John W. Ward, Superintendent of the State Insane Asylum at Trenton, read a paper on

GENERAL PARESIS.

The profession at large is urged to recognize this disease in its incipiency if possible, for no benefit from treatment can be expected after the first symptoms have become fully marked. It was written of in the seventeenth century, but was believed to be a concomitant of insanity, and not a disease *per se*. Insane asylum statistics show that the disease is on the increase. Three stages mark its course. First, fibrillar tremblings; second, muscular incoördination and mental enfeeblement; third, advanced paresis, with complete loss of mind. Eccentric actions on the part of the victim are usually the first indications of the disease. Then motor symptoms show themselves, and advance hand in hand with the mental disturbances. Melancholia always precedes the disorder, in the belief of the writer. Inability to coördinate the movements of the tongue, slight loss of consciousness, and absent-mindedness, mark the first stage. The second stage is an exaggeration of the first, and ideas of an extravagant character occur, which are very characteristic of the disease. For a short period, the mental symptoms may almost entirely cease, but the motor disturbances do not remit. The general health is not much deteriorated until the third stage, which is usually ushered in by one or more epileptiform seizures. The general health now becomes much depreciated, and is accompanied by a loss of coördination and an entire loss of mind. Treatment is beneficial only in the beginning of the first stage, if ever. Muscular atrophy, lead poisoning, mercurial poisoning, and locomotor ataxia may resemble it in symptoms, but should not be mistaken for it on account of their characteristics. There are no characteristic pathological lesions. The disease is more common in men than women, and occurs between the ages of thirty-five and fifty-five. All early excesses probably tend to some degree to prove etiological factors. No authentic cases of recovery can be cited. The average duration of the disease is three years, and death usually is due to some intercurrent disease. Although treatment has thus far availed nothing, the symptoms may be best relieved by the use of the bromides. The use of ergot by the author has given no satisfactory results.

Dr. W. James, who was to have read a paper on "Toleration in Medicine," was not present, being prevented by sickness. He was excused, and a copy of his paper was requested for publication in the *Transactions*.

CONCERNING PERSONS PRACTICING WITHOUT DIPLOMA.

Dr. Parrish reported, on behalf of this committee, that they had met near the close of the session of last year, and had concluded to report that in the judgment of the committee the law of the State was sufficient, if it was put into execution, to arrest if not to eradicate the evil complained of. Any district medical society had the right to complain to the prosecuting attorney of the county where the offending party was practicing, and upon the complaint being suitably made the case would come to trial, and if the party was found guilty punishment would be administered.

Dr. Elmer, the Corresponding Secretary, then presented his report. The chief item of interest was the response of the different district societies to the circular requesting their opinion regarding the proposed action of the State Society as regards preliminary education. Most of the district societies had considered the question. All approved and many had already made changes in their by-laws, compelling their members to insist on a certain standard of education previous to entering the study of medicine.

Adjourned until 9 o'clock to-morrow.

Dr. Pennington read a long report from the Committee on Education on the subject of the regulation of the practice of medicine in the State. The report gave an historical resumé of medical legislation in this State, and finished with certain propositions—that the power of licensure should be separated from the function of instruction, and invested in the Governor of the State; that he should appoint an examining board of seven physicians, to be chosen from twelve members of the State Medical Society, and nominated by that Society; that this board should require from each applicant the usual evidences of study and diploma, and should examine them in all branches of physic and surgery; that if it was deemed necessary, another board should be organized from the members of the other medical society of the State; and that this Society does not approve of a mixed board; that this Society, in its corporate capacity, should take no action, but through its Standing Committee should act with the State Board of Health in presenting the matter to the Legislature.

The report was laid over one year.

The committee on treasurer's accounts reported that it had examined the accounts of the treasurer, and found them correct.

Receipts from 1883	$262 19
From district societies	1124 00
Interest on U. S. Bonds	62 00
	$1448 19
Disbursements	614 77
Balance	$833 42

The committee on revision of the by-laws made a full report, which was adopted, and the committee instructed to have 1,000 copies printed in pamphlet form.

OFFICERS ELECTED FOR 1886.

President, Joseph Parrish, Burlington. First Vice-President, Charles J. Kipp, Newark. Second Vice President, John Ward, Trenton. Third Vice-President, H. Grant Taylor, Camden. Corresponding Secretary, Wm. Elmer, Jr., Trenton. Recording Secretary, Wm. Pierson, Orange. Treasurer, W. W. L. Phillips, Trenton. Standing Committee, T. J. Smith, E. J. Marsh, D. C. English.

It was voted that the next annual meeting be held at Spring Lake on the second Tuesday in June, 1886.

It was voted that the assessment of the district societies be $1.50 per capita.

Dr. W. K. Newton was appointed essayist.

Subject for discussion at the next annual meet-

ing will be, "The results of the use of the muriate of cocaine in ophthalmic surgery and also in general practice, as developed by the experience of individual practitioners."

Fellow Prize Essay Committee, P. C. Barker, Z. W. Oakley, Jos. Green.

The committee will announce the subject in a few weeks in the medical journals.

Committee on Arrangements, D. McLean Forman, Robert Laird, Henry Mitchell.

Adjourned.

Medico-Legal Matters.

Governor Pattison has signed the anti-oleomargarine bill, and it is now a law, going into effect on July 1. The first and most important section of the bill is as follows: "No person, firm, or corporate body, shall manufacture out of any oleaginous substance, or any compound of the same, any article designed to take the place of butter or cheese produced from pure, unadulterated milk or cream from the same, or any imitation or adulterated butter or cheese, nor shall sell or offer for sale, or have in his, her, or their possession, with intent to sell the same as an article of food." This statute, like the New York one passed about a year since, aims to absolutely prohibit the manufacture and sale of oleomargarine, and, unlike most prohibitory laws, can be enforced with a reasonable degree of success. Indeed, the experience of New York is to the effect that in the short time which has already passed, probably nine-tenths of the traffic has been broken up, and this in the face of a test case in the Court of Appeals, which stands a fair chance of being decided in favor of the manufacturer of oleomargarine. It is claimed there that it is unconstitutional to prohibit the entire manufacture of an article which is not unhealthy when made from pure and healthy substances. The great trouble, however, is that it is practically impossible to prevent the sale of oleomargarine as real butter by any statute short of a prohibitory one; and for that reason the farmers are bent on straining the legislative powers to their utmost in order to secure the very desirable result of prevent a fraud on the public by the sale of oleomargarine as a genuine dairy product.

The largest company in the United States engaged in the manufacture of oleomargarine was forced some months since to suspend business, and now it has become bankrupt, a proof that the laws on the subject are far from a dead letter. If there was any zeal shown in the administration of the laws relating to the public health equal to that manifested in New York against the imitation butter manufacturers, there would be little danger of cholera or other epidemics becoming established in any of our cities.

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A peculiarity in crime has recently been developed in New York by the use of the lasso. A gentleman was passing through a lumber-yard in that city a few weeks since, when suddenly a lasso was thrown over his shoulders and drawn tight, pinioning his arms to his side. A violent pull at the lasso threw him down, and four men, springing from a pile of lumber, choked the unfortunate man until he could make no outcry, and then he was robbed. The men were speedily arrested and tried, and the District Attorney, in summing up the case, said: "If these men are not dealt with without ceremony or mercy, we will have an epidemic of lassoing in this city, just as there was an epidemic of garroting some years ago. These men, ex-convicts, fresh from State prison, have originated a new departure in crime; and if they are not summarily punished, the lassoing of strangers for the purpose of robbery will become as common as the lassoing of wild bronchos on the Western plains." All four of the assailants have been convicted, but only two have been sentenced; but the term of imprisonment, twelve years, is not calculated to make lassoing popular among the criminal classes.

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In a recent case in the Wisconsin Supreme Court, where damages were asked for and secured for injuries suffered by a fall on a sidewalk which was out of repair, it was claimed that there should be a deduction from the verdict because the plaintiff's disability was prolonged by a predisposition to inflammatory rheumatism. The court decided, however, that this was no reason for a diminution of damages, but on the contrary cited two cases where increased damages were allowed, one of them being a case where the plaintiff had an organic tendency to scrofula, and the other where there was a miscarriage in consequence of the injury.

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In Washington, recently, a mob of negroes prevented a surgical operation of great delicacy and importance by the cry of "Keep out the night doctors; dey only wants de body," and the result was the death of the patient, because of the impossibility of completing the operation.

The superstition of the negroes, even in a city like Washington, against what they term the "night doctors," is as curious as it is ineradicable; and in this instance the operation had to be stopped because of the threatening actions of the mob, which broke into the room where the doctors were at work, and ordered them to stop.

Dr. Germer and the Cooley.

Last Wednesday week Dr. Germer went up to a building occupied by a Chinaman, in Erie, and said:

"John, you move your traps and get out of this old shell: it is a nuisance and has to come down."

"Whatee, you pullee down washee housee?" exclaimed the Mongolian in terror. The doctor nodded his head and gave the laundryman a significant gesture of his hand and said: "This is your funeral and not mine; do as you please, but there are some cellars cleaned out under the Ellsworth house, and you had better move there and keep the rats off and keep clean, or you'll have to get again."

The conversation was pretty lively between the two antipodes, and quite a crowd assembled.

Said the doctor in a subsequent interview: "All this trouble could have been avoided years ago if our lawmakers had adopted my proposed ordinance, regulating rent houses; but it seems

they don't like it, and walk around it like the cats around a bowl of hot milk. You know I demanded the following: If a man has a house to rent for a human habitation it ought to be clean, ought to have a good roof, a dry cellar, and a sewer connection, if there is a sewer connection in the street. It ought to be supplied with sufficient drinking water, and with a decent outhouse or water closet, and in case the house is not so constructed the lease ought to be null and void.

"This is my proposed law, which would do more to promote the health of the city than all the sidewalks, bread, sausage, milk, cheese, and street-sprinkling ordinances in vogue. The councilman who will get this law through will get a monument like Anthony Wayne, or a better one, providing the next generation is not a miserable failure from a sanitary standpoint. An unhealthy house is a swindle on a poor family, and if we had such a city law the house owners would lose no time to get their apologies of rent houses in proper shape. A real estate agent told me today that he is often ashamed to collect rent for a stingy owner of such tumble-down rookeries, and that more sickness and misery reigns in such places than the people generally know. Generally such men are the owners of the frog and malaria ponds around the city, and it is no easy job to bring them to terms. For the last ten years I had to fight almost every day in that line, and it makes me sick if I look at the gutter on the west side of State street, between Twelfth and Fourteenth streets. But it is no use to get discouraged, and I think the time is coming when good sanitary officers will be just as highly esteemed and remunerated as the high sheriff of a county who hangs the criminals, or as the man who cuts off rotten bones from the human body."

The Prevention of Yellow Fever.

Dr. Domingos Freire, in a recent communication to the *Rio News*, gives an account of the inoculations practiced in Rio de Janeiro with the attenuated liquid culture, as a prevention against the dangers of contracting yellow fever. From December 22 last up to March 22 of the present year, 1109 persons of different nationalities, and whose ages ranged from one month to sixty years, were submitted to subcutaneous injections in the deltoid region of the arm with the said liquid. All, with the exception of one or two cases, experienced elevations of temperature, varying from 37½° C. to 40° C., frontal headache, pains in the articulations, general indisposition, and, in some, lights epigastric oppression—symptoms which ceased after from twenty to forty hours, and without any medical intervention. In many cases these injections were practiced in houses where, a few hours before, deaths had taken place from yellow fever; nevertheless, in the cases specified, and under disadvantageous hygienic circumstances, not one single serious accident is said to have happened. Most of the inoculations were performed in the presence of the two medical men commissioned by the Spanish Government to specially study yellow fever in Brazil.

Chinese Diagnosis of Leprosy.

From the *National Druggist* (May 22, 1885,) we learn that slavery is perpetual and hereditary in China, the price of a slave varying from 20 to 600 francs, according to sex, age, personal appearance, etc. On purchasing a slave the buyer has the privilege of taking the chattel on trial for a month. One of the defects which it is most desirable to guard against is a latent tendency to leprosy, which is so common in China. The test of this obscure point is a peculiar one, and betrays a deep knowledge of the actinic effects of polarized light. The person to be examined is taken into a room from which all sunlight is excluded. A chemical compound which makes a blue flame is then burned, and the skin of the suspect is closely scanned. If it appear green under the blue light all is well, but if there is the slightest tinge of red is observed, the slave is rejected. It is said that the test is infallible, and that leprosy, though it may remain latent for a long time afterward, will always make its presence known in this manner to the careful observer.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended June 6, 1885.

Wyman, Walter, surgeon. To inspect unserviceable property at Baltimore, Md., June 6, 1885.

Carter, H. R., passed assistant surgeon. To inspect unserviceable property at San Francisco, Cal., June 6, 1885.

Battle, K. P., assistant surgeon. To inspect unserviceable property at New Orleans, La., June 6, 1885.

Cholera Inoculation.

Dr. Gabbiu, of the English army, has arrived at Madrid to examine Dr. Ferran's system of inoculation to prevent cholera. Further cases of cholera have appeared here, which the doctors say are sporadic.

Items.

—A correspondent in the *London Lancet* writes that any one may be cured of stammering by simply making an audible note in expiration before each word.

—A hod carrier having met with an accident, the town papers report that "Dr. ——— was called in, but no disastrous results followed up to the time of our going to press."

—A correspondent of the *New York Medical Record* says that in Germany the operation for gastrotomy is so common that few care to witness even Billroth's operations for gastrotomy.

—The study of sanitary engineering is henceforth to form a part of the course at the School of Mines of Columbia College (N. Y.), and it is announced that the chair will be filled by Dr. John S. Billings, of the army.—*N. Y. Med. Jour., June* 6, 1885.

—A clerical lunatic of the anti-vivisection genus declared not long ago that "the meanest devil in hell knew more than the entire British Association." A contemporary humorously congratulates the reverend gentleman on his evidently intimate acquaintance with his subject.

—A tradesman having bought a door-mat with the word *salve* (welcome) in the centre, a country relative on seeing the mat remarked: "I say, Cousin John, what kind of salve is that you advertise on your door mat?"

—A serious epidemic of whooping cough has run through the islands of the Fiji group. The malady has carried off all the very young native children, and left a decrease in the population of 3,000. A few years ago 30,000 persons in Fiji died from an epidemic of measles.

—Two fatal cases of chicken-pox, one reported by Dr. G. W. Rachel, in the *Archives of Pediatrics* for April, 1884, the second by Dr. J. V. Wichmann, of Copenhagen, in the *Nordiskt Med. Arkiv.*, xvi., No. 20, show that varicella is not always the mild disease which is its general characteristic.

—An American and an Englishman were once having a heated discussion as to the relative size of the Thames and the Mississippi. The American finally clinched the argument thus: "Look here, mister; why there ain't enough water in *the whole* of the Thames to make a gargle for *the mouth* of the Mississippi."

—A public meeting was held not long ago in Leicester, England, to protest against the compulsory vaccination law. Several thousand people marched in procession and assembled in the public square to listen to speeches from opponents of the measure. A picture of Jenner was burned, and also a printed copy of the objectionable vaccination law.

—Carl H. von Klein states that in forty-eight hours he saw nine children who were affected with leucorrhœa which, in his opinion, was caused by roller-skating exercise. He regards this exercise as injurious to young girls and young women, by reason of the excessive movements of the lower extremities, the pelvic organs, and the walls of the vagina.—*Boston Med. and Surg. Journal*, April 2, 1885.

—A young physician, who has just established himself, and has very little practice, is noted for his braggadocio. One of the older physicians, meeting him on the street, yesterday, asked him how he was coming on. "I've got more than I can attend to," was the boastful reply. "I had to get out out of my bed five times last night." "Why don't you buy some insect powder?" asked the old doctor.—*Ex.*

—To the Manchester (England) Medical Society Dr. Hodgkinson exhibited three cases of sporadic cretinism, showing marked arrest of mental and physical development, together with, in two of the cases, immense goitres. There were no circumstances in the family history or general surroundings to account for the condition of the individuals, except that their mother had a slight fulness of the throat over the position of the thyroid gland.

—A test is suggested by Dr. Dulles, in the *Polyclinic*, for determining the character of the fluid discharged from a suspected salivary fistula. It consists in bringing a drop of the discharge into contact with a drop of the tincture of chloride of iron on a white surface—a piece of white paper will do—when, if the discharge contains saliva, it will give the pink color which indicates the presence of the sulphocyanide of potassium, a normal ingredient of saliva.

—Dr. Fleischl, of Vienna, is recently reported to have found in cocaine a rapid and satisfactory cure for alcoholism, morphinism, and allied habits. The nervous symptoms which arise upon either withdrawing the drug abruptly or by degrees are treated by the hypodermic administration of the muriate of cocaine. It is claimed that in ten days a cure may be effected. The dose is from a quarter to half a grain dissolved in water.

—F. Hoppe Seyler, in the *Zeit. Physiol. Chem.*, states that a soda soap exists in the serum of blood and of chyle, and that it may be obtained by precipitation with alcohol and subsequent evaporation at a low temperature. Blood serum of the ox, horse, and dog contains 0.05 to 0.12 per cent. of the fatty acids of soap; human chyle 0.23 per cent. of soap and 0.723 of fat. Blood serum in a case of pneumonia contained 0.662 fatty acids of soap. The origin of soap in these fluids has not as yet been accounted for.

—Le Conseil d'Hygiène et de Salubrité has raised the question whether, in the interest of public health, isinglass ought to be used by pastry cooks in making creams; an article called "Japanese Pearl," made with isinglass, is sold for making a soup which is highly esteemed. As isinglass is perfectly innocent, the Conseil decided that it is not necessary to prohibit its use; nevertheless, when used in the preparation of creams and jams, the public are to be told the nature of the article they buy.

—A committee of the Verein für Innere Medicin, in Berlin, formed for the purpose of collective investigation of disease, which has hitherto rather hung fire, has been lately increased to 27 members and a responsible secretary. Dr. S. Guttmann has been appointed to maintain communication with foreign correspondents. A large number of cards have been issued, drawn up on similar lines to those circulated in England, of which a goodly supply had been forwarded to Berlin, to serve as models.

—Dr. Watelet, the physician in attendance upon Bastien-Lepage, the French painter, lately deceased, has been fined 100 francs for having violated the rules of professional secrecy in writing a short note for the public press. The note was intended to set at rest some slanderous stories that had been circulated concerning the nature of Lepage's disease, and simply stated that the patient died of a cancer. Although it was admitted that this was done only out of kindness to the memory of the deceased, it nevertheless constituted a breach of the penal code.

—Dr. Koch tells the following story about the origin of his celebrated cultivative experiments. He had been, like many others, trying various kinds of decoctions and infusions, when walking along the street one day he noticed a potato covered with a fungous growth, and it occurred to him that disease germs might thrive equally well on the same nutriment. This was the beginning of his wonderful series of dry cultivated experiments, and thus Professor Whittaker expressed it at New Orleans: "The potato was to Koch what the apple was to Newton."

THE

MEDICAL AND SURGICAL REPORTER.

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Original Department.

Communications.

THE TREATMENT OF GONORRHŒA.

BY J. WILLIAM WHITE, M. D.,
Of Philadelphia.

(*Concluded from page* 775.)

It may, during this period, be necessary to give something to relieve certain symptoms, chief among which are ardor urinæ, chordee, and frequent urination, which are often combined and are frequently very troublesome. For the relief of the ardor urinæ, I push the diuretic mixture already described—instead of giving it five or six times a day, giving it every hour or two, and continuing it through the night. If there is tumefaction, I direct that the organ be wrapped in lead-water and laudanum, warm or cold as is preferred, and that urination shall be performed in a cup of hot water. This sometimes gives extraordinary relief. I am unable to give a satisfactory explanation for this result; one theory is that it acts by equalizing the circulation of blood in the inflamed organ, the blood being drawn from the congested urethra to the surface, and thus lessening the swelling of the mucous membrane, and affording easier and less painful passage to the stream of urine. Whatever the explanation may be, the fact remains that in two or three cases out of every five great relief is afforded by urinating in a hot bath or in a vessel containing water as hot as can be borne. Sometimes where the symptoms have been very severe, and these measures have failed, it has seemed proper to try demulcent injections, and I have used a mucilage of acacia, or sassafras, or a mixture of glycerine and water. First stripping the urethra gently, two or three drachms of one or other of these mixtures have been injected. I always fear, however, that these injections may carry the irritating pus into the deeper parts, and in only a few cases has it been so useful as to warrant its employment. I have lately tried cocaine under these circumstances, but not in a sufficient number of cases to warrant a positive opinion; in some it seemed to fail altogether, while in one or two it appeared to aggravate the condition. In others it gave decided relief. Whether these differences were due to differences in the preparations or in the conditions present, I am unable to say; but what we have heard lately in regard to the therapeutic effects of cocaine would certainly lead us to think that it ought to be useful in this condition.

Chordee is another symptom which occurs at this stage, and is most troublesome and annoying. Many remedies for its relief have been recommended, among which the only ones which I think worth mentioning are, opium in combination with camphor in the form of a suppository, containing half a grain of the aqueous extract of opium or one grain of powdered opium and three grains of camphor, at bed-time; opium alone in the same dose (and I am not convinced that the camphor is very effective); lupulin, in fifteen- to twenty-grain doses; tincture of gelsemium in ten- or fifteen-drop doses every time the patient awakens with chordee; and finally, bromide of potassium, which is the best of all. This seems to have fallen into undeserved disrepute. Bromide of potassium is more efficient in preventing erection than any of the other drugs which I have

mentioned. When a patient complains of chordee, I usually give the following directions: I tell him to try and secure his daily stool at bed-time instead of in the morning, and, if necessary, to take a laxative, as some mineral water, during the afternoon; I tell him to use a hard mattress, to sleep in a cool room under light bed-clothing, and to avoid sexual thoughts; I then give thirty-grain powders of bromide of potassium, with directions to take one during the afternoon, one after supper, and one at bed-time, and to keep one dissolved at his bedside, and to take this if awakened at night with chordee. Of course, if this were continued for any length of time, there would be symptoms of bromism. I have never seen anything except anorexia (which is not an unmixed evil), drowsiness, and slight disturbance of the digestive tract. Bromide of potassium is indicated, for a number of reasons, in inflammatory gonorrhœa. It is an alkali, an anaphrodisiac, and an arterial sedative, so that, apart from the symptom chordee, I am in the almost invariable habit of using bromide of potassium in the acute stage of inflammatory gonorrhœa.

As I have said, I wait for the subsidence of inflammatory swelling before using injections. When the patient reports that he has less pain in urination, fewer painful erections, and I see that the discharge is more watery and lighter in color, I then think of the use of injections, beginning these with some caution. At first I usually employ a mixture of lead-water and laudanum, or the watery extract of opium, sometimes with a little tincture of aconite or belladonna, or both, and watch the effect. Of late I have sometimes added cocaine. I order these injections as I do all others, to be used in such strength as to not give more than a slight tingling or smarting. I think it better to discard them altogether if they excite severe pain. The injection of lead-water and laudanum I use for three or four days, sometimes for a week, and pass from it to injections containing an insoluble sediment, which serves to protect the urethra from the stream of urine, and to support the dilated vessels by its mechanical and constricting effect. For a number of years I have used most frequently subnitrate of bismuth; this, however, sometimes set up severe inflammation. It was suggested to me at a meeting of this Society, and, I think, by Dr. Leffmann, that the subnitrate of bismuth was crystalline, and that the presence of crystals might sometimes prove irritating, but that the subcarbonate, which is an amorphous powder, was not open to this objection. I have used this latter drug for some time, and I think with better results. The injection may contain the subcarbonate or subnitrate of bismuth, sulphate of zinc, and acetate of lead, in which double decomposition takes place; or oxide of zinc, acetate of zinc and tannin, which precipitates the tannate of zinc; kaolin, or finely pulverized earth of any sort, made into paste with water. Any of these answers an admirable purpose at this stage.

After using these for a few days, I tell the patient to stop them for twenty-four hours. If the discharge still persists, I usually employ a stronger injection, which is often acetate of zinc, combined with laudanum, dilute hydrocyanic acid, morphia, or, as now seems especially appropriate, with cocaine if there is pain. Sulphate and acetate of zinc are the two drugs which I consider of the greatest value in this subsiding stage of gonorrhœa.

About the time that the first injection of lead-water and laudanum is given, it is usually good practice to put the patient on the so-called antiblennorrhagics—the only ones which I use being cubebs, copaiba, and oil of sandalwood. Kava-kava, which was strongly recommended by Dupuy, I have tried, but never succeeded in getting good results. Balsam of gurjun has been recommended. I have tried various preparations of it, but it is exceedingly unpleasant, irritates the digestive tract, and in my hands has not given good results. Cubebs, copaiba, and oil of sandalwood, these being the three drugs which I usually substitute for the alkaline diuretic mixture, may be given in emulsion at first, in order to continue the bromide of potassium—giving, for example, bromide of potassium, oleo-resin of cubebs, and oil of sassafras, made into an emulsion with gum arabic and water. In order to save time, I have called this mixture mistura cubebæ, the formula of which I had published in the *Druggists' Circular*, so that the mixture could be put up under that name. After the pain has subsided, I give cubebs and copaiba in capsules. If the patient goes to a reliable druggist, this is the best way to give these drugs. In regard to sandalwood I have some doubts. I think that as good results are not obtained from capsules of sandalwood oil as with sandalwood in other ways; this is possibly due to the use of an inferior oil in the capsules. There is a commercial oil which has not the beneficial effects of the pure oil; the commercial oil is dark instead of having the amber color of the pure oil, and is more irritating to the digestive tract. Although I prescribe capsules of copaiba and cubebs, I prefer, therefore, to order sandalwood in quan-

tity, and direct the patient to take ten drops on sugar, three or four times daily, usually after meals and at bed-time. This is usually the last prescription for internal remedies that it is necessary to give.

An ordinary case, running its course without complications, will terminate in from three weeks to a month, which I consider as good an average as may be hoped for from any method of treatment of gonorrhœa. Much shorter periods are noted from various forms of treatment, but I confess that I look on these with more or less doubt. They are either selected cases, or colored by the imagination and wishes of the reporter. I have had large opportunities, and have experinented cautiously, but faithfully, with the various methods of treatment reported ; I have tried the so-called antiseptic treatment recommended by Cheyne ; the injection of boracic acid as advocated by Hyndman, of Cincinnati ; I have tried Bauer's so-called "rational" treatment (in fact I had used it before he advocated it), but never with the results claimed by the respective authors of these methods. I have finally settled down to the routine treatment which I have just described.

In certain cases, in spite of treatment, the urethral discharge will continue, and these are the cases which give both the patient and the practitioner much annoyance. These, like the cases of gonorrhœa may be divided into three classes, urethral catarrh, chronic gonorrhœa, and gleet. Most of the cases of chronic urethral discharge will come under one or other of these heads.

Patients will sometimes return after the subsidence of the acute symptoms of gonorrhœa, complaining that the discharge has not ceased. If the case be carefully examined, it will be found that they have at most a drop of watery fluid in the morning, or once or twice a day. There will be little or no pain on urination. They are often persons inclined to be hypochondriacal, and to pay too much attention to their sexual apparatus, and it will be found frequently that the trouble is really due to lack of tone in the capillaries of the mucous membrane of the urethra, and requires very little treatment. If we pass from one injection to another, and give internal remedies of different kinds, the patient's attention will be kept on his condition, and the case may continue under care for weeks. These are the cases in which we hear of marvelous homœopathic cures. The patient leaves the surgeon and passes to the homœopathist, where he gets practically no treatment ; the *vis medicatrix naturæ* is given an opportunity, the patient recovers, and homœopathy gets the credit. In these cases I give a little good advice : if the patient can afford it, send him to Atlantic City ; order a few drops of the syrup of the iodide of iron, a good generous diet, with a little claret or Burgundy at dinner, quinine at bed-time, and, if the season is suitable, salt bathing. Under this treatment a cure will often be effected in a few weeks, or in less time. The chief difficulty in such cases is to retain the patient's confidence.

The second class, that of chronic gonorrhœa, requires persistent treatment. The diagnosis between chronic gonorrhœa and gleet should be carefully made. In chronic gonorrhœa the discharge continues without any intermission between it and the acute affection ; this discharge is aggravated on slight provocation, by indigestion, by sexual excess, or more particularly by ungratified sexual excitement, by alcoholic excess, cold, and over-exertion—all these increase it often, until it is so severe as to simulate acute inflammatory gonorrhœa. It is attended with more or less localized pain along the urethra and during urination ; the discharge is creamy, and careful investigation with bulbous bougies will show a point of marked tenderness, the bougie bringing away pus, perhaps streaked or tinged with blood.

This condition, I think, requires for its treatment the use of localized injections, with the employment of the syringe known as the prostatic syringe. The point of trouble is usually a superficial ulceration, or a granular urethritis. The patient is shown how far to introduce the syringe. The most useful injection is, I think, nitrate of silver, using it of the strength of one-fourth to one-half a grain to the ounce, gradually increasing the strength, and using from a drachm to a drachm and a half at each injection, slowly deposited at the affected spot. If this fails, there may be associated with it the gentle use of full-sized urethral instruments, either steel or rubber. I have usually employed Thompson's sounds. These must be used with care. If they aggravate the condition, they should not be again employed until the inflammation has assumed its chronic character.

The third variety is gleet, by which I mean a condition in which there is a milky or milk-and-watery discharge from the urethra, without distinct localized pain. In this there is usually a considerable interval between the date of the gonorrhœa and the reappearance of the discharge. It is often associated with more or less frequent urination and hypogastric and lumbar pains. It

is usually dependent upon the presence of a stricture, which is frequently a so-called "stricture of large calibre." The treatment of the discharge depends upon that of the stricture, to consider which would lead us beyond the limits of our time.

The notice which was sent out announced the subject for the evening as the "Treatment of Gonorrhœa and Its Sequelæ," but with the permission of the Society, I shall take the opportunity of considering the treatment of the sequelæ on another occasion.

Before I sit down I wish to mention a point on which I should like to have the opinion of the Society, and that is in regard to the use in chronic urethral troubles of the so-called soluble bougies, particularly with reference to those made by Foote & Swift under the name of vectors. I have given them a careful trial, but am unable as yet to pronounce an absolutely positive opinion. Theoretically, they certainly should be useful, but where I have expected good effects they have often seemed to be irritating. They cannot be diluted as can an injection. I have had some of these made with cocaine, and have used them before performing urethral operations, such as the removal of urethral polypi and internal urethrotomy. I find that simply dipping them in water does not permit of their ready entrance into the urethra, and if they are oiled, one of the advantages which is claimed—that the remedy comes directly in contact with the tissue—is destroyed. It seems to me, however, that there are possibilities of excellent results from their employment, and I should like to have the experience of the Society.

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. SEELYE, A. M., M. D.

Fibrous Phthisis.

This patient is a man 57 years of age, married, a native of Ireland, and employed in building houses. Was admitted December 22d. He gives no history of rheumatism or of syphilis. Is only a moderate drinker, taking two or three glasses of spirits a day. He has been employed a good deal about new buildings, where he was exposed to all kinds of weather, and where new earth was continually being thrown up in making foundations; and so, five years ago, he contracted malarial fever, and he has had occasional attacks, with chills, fever, and sweating, for most of the time since. The last chill was ten days ago. Since then his bowels have been irregular, with alternations of diarrhœa and constipation. For the past five years he has been troubled a great deal with a cough, accompanied by a profuse expectoration of mucus, which contained no blood, and by shortness of breath. These symptoms were worse at night, and especially in the winter season. With his last paroxysm of ague, ten days ago, he had a diarrhœa, and there was blood in the stools; and since then his cough has been more troublesome, and he has been very short of breath. His micturition is normal. On admission his pulse was 96, respiration 28, and temperature 103.2°. There was no albuminuria, and the urine was normal, and had a specific gravity of 1.016. At the present time the pulse is 70, respiration 20, and temperature 102°.

Gentlemen, while you are sitting at the bedside of a patient and are questioning him, and while he is telling his story, you can at the same time be taking the vital signs. You can be estimating the frequency, quality, regularity, and tension of the pulse, and can observe the effect of emotion and excitement upon it, and notice the condition of the artery itself. Then you can count the respirations, and take the temperature in the axilla, and you can do all this without disturbing the patient. Now, this man's radial artery feels irregular under the finger, and gives an impression as if there were a series of rings around it, such as the cartilaginous rings of the trachea, and this is a sign of atheromatous degeneration of the arterial walls. His pulse is regular, strong, not very frequent, and its quality is fair, and there is not much tension. There is another thing always to be taken into consideration, which is illustrated here. This man has been lying quietly in bed ever since he came into the hospital, and in this condition the pulse and respiration are lower than they would otherwise be. But yet they are not so slow as they ordinarily are in a healthy individual when he has been long quiet. With a pulse of 70 and a respiration of 20, though the respiration bears a proper relation to the pulse, yet the breathing is comparatively rapid for a healthy person in the recumbent position and in the tranquil state. The patient is therefore in a febrile condition, and so far you have established this fact. And in examining a patient you should in all cases determine, the first thing, whether he is in a pyretic or an antipyretic state.

Percussion.—Over the upper portion of the right side of the chest, both anteriorly and posteriorly, there is dullness on percussion. The region of hepatic dullness is increased. The upper boundary of the liver is a little lower down than it should be, and it is at the level of the eighth rib, instead of being, as it often is, in the sixth intercostal space, or at the level of the seventh rib. The lower limit is farther down than normal, and it comes to within one inch of the umbilicus, and extends to the left. There is tenderness upon pressure in the epigastrium, and over all the area of hepatic dullness, and this tenderness is greater after eating. The stomach is somewhat distended, and the area of splenic dullness is increased.

Auscultation.—Anteriorly the inspiratory sound is of longer duration upon the left side than upon the right. Posteriorly, at the apex of the right lung the vocal resonance has a bronchial charac-

ter, and there are moist rales. The lower portions of both sides of the chest are about normal.

We have now located one disease in the upper portion of the right lung, and another lesion in the upper abdominal region, and probably involving the liver. So we have two questions to determine here; one the nature of the pulmonary lesion, and the other the cause of the hepatic and splenic enlargement. There are certain facts in the history which bear upon the pulmonary lesion, and which will aid us in the diagnosis. He says that he has been troubled with a cough and shortness of breath, which are worse at night and in the winter time, for the past five or six years, and he has to get up several times during the night to expectorate. This subjective history, together with the physical signs which we have obtained, would indicate that he is now suffering from an inflammatory variety of phthisis, and a variety which is very different from a tubercular phthisis, which runs a very rapid course, and causes rapid destruction of the lung tissue, and consequent excavations. In other words, we have here what is described in these days as a fibrous phthisis, resulting from a catarrh of the bronchial tubes, and diminishing more or less the pulmonary capacity. Such cases as this usually run along for years, and finally terminate with no very great destruction of tissue. But there is a sort of cirrhosis of the lung. This condition may result from a chronic catarrhal bronchitis which started with a cold, and it may go on until it causes great shortness of breath upon exertion, and finally, as a consequence of the insufficient circulation through the lungs, caused by the diminished pulmonary capacity, it gives rise to cardiac disturbances and congestion of the venous system, and especially of the chylo-poietic viscera.

We still have to account for the tenderness and hypertrophy of the liver. Yesterday there was more tenderness, I think, than to-day, and the liver then appeared to be a little larger. Recently there has been a very considerable amount of hemorrhage from the bowels. Now, hemorrhage from the bowels may indicate various morbid conditions, such as hemorrhoids, or an inflammatory condition of the lower bowel, that is dysentery, or sometimes it may be the result of an acute hepatic congestion, which causes a secondary congestion of the mesenteric veins; or it may occur with cirrhosis of the liver, or from those conditions of various kinds which result in an ulceration of the bowels. So here we must consider all these possible causes of hemorrhage. We can readily exclude some of them. But upon asking him if he has recently been troubled with piles, he says that he has, and that they come down occasionally, and they have bled before this. So it is probable that the hemorrhage from the bowels is from this cause.

Now, has this condition any relation to enlargement of the liver? This enlargement of the organ is pretty uniform, and it is not connected with any special indication of any deposit in either the left or right lobe. But the surface is smooth and regular, and gives evidence of no tumor. A uniform enlargement of the liver may depend upon several conditions. It may be a congestion here, for, you will remember, he has had a good deal of fever and ague. It may be due to cirrhosis; but he has not been a hard drinker and he has never had any dropsy. It may be a fatty degeneration of the liver; but I do not think that the history is very consistent with that view; for fatty liver generally occurs with the more acute varieties of phthisis. From the amount of blood which he has lost recently, I am inclined to think that it is merely due to a temporary congestion of the organ. But we cannot yet determine the cause with any certainty, so we must leave the diagnosis until we can see what will be the effects of treatment. In a week's time we shall probably be better able to tell the true condition. In such a case it is impossible to arrive at a definite conclusion from a single examination. And, remember, in chronic cases, that it is never best to make a diagnosis too quickly, and haste is not necessary; but you should wait patiently and observe the effects of treatment, and come to no conclusion until you are justified in making a definite diagnosis.

There is one thing that you may be absolutely certain of here, and that is that he has a chronic phthisis of the fibrous variety. But as regards the abdominal difficulty, I will express no opinion as yet, for the cause of this enlargement of the liver I cannot determine at present, and there is no reason why I should. In acute diseases the case is very different, for then you must make your diagnosis promptly, and it requires a good deal of knowledge in order to appreciate the significance of symptoms when you meet them. And you cannot make a diagnosis from the objective signs unless you know the various conditions which these signs may indicate. For there are very few pathognomonic signs indicative of some one special morbid condition, but most of the subjective symptoms and the physical signs are common to a great variety of diseases.

Medical Societies.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Discussion on the Treatment of Gonorrhœa.

Reported by William H. Morrison, M. D.

Dr. Baldwin: Dr. White has simply given us the male side of the subject, and I should like to ask if he employs the same treatment in the female?

Dr. White: I omitted reference to the treatment of gonorrhœa in women more for want of time than anything else. I have found gonorrhœa in the female more amenable to treatment than it is in the male. There is rarely any difficulty if the patient can be put to bed. The majority of the cases are vaginal; though sometimes they are urethral, and sometimes vulval; at times all three forms are combined. The vaginal variety is probably the most amenable to treatment. The vaginal mucous membrane is not so richly supplied with blood as the membrane affected in the male, nor are the parts exposed to the influences which render the treatment of gonorrhœa in the male so difficult. I usually put such patients to bed, and order a routine treatment consisting of injections of acetate of lead and a suppository of opium and tannin at night. The injections are to be given

every four hours during the day, with the woman in the lithotomy position, using a Mattson's or Davidson's syringe. The patient is directed to first use an injection of castile soap and water. This is followed with an injection of plain water, to remove all traces of soap. One or two teaspoonfuls of sugar of lead are next added to a pint of warm water, which is then injected into the vagina. If there is vulvitis, a cloth is wrung out in this same solution and applied to the vulva. At night, a suppository containing ten grains of tannin and half a grain of opium is used. This is routine treatment, but it suffices for the cure of the majority of cases of vaginitis. If the urethra is affected, injections are to be used with caution, as on account of the shortness of the canal they are apt to cause irritation of the bladder. This shortness of the canal and the absence of erectile tissue, render the disease more amenable to treatment than urethritis in the male. This often subsides while the vaginitis is under treatment. If the urethritis is marked, that is, if by running the finger along the urethra two or three drops of purulent fluid can be pressed out, and if there is much pain in urinating, I put the patient on the alkaline diuretic, and give one of the antiblennorrhagics. This, in a few words, is my treatment for gonorrhœa in the female.

Dr. Black, a former resident physician of the Philadelphia Hospital, introduced a very useful method of treating these cases, by filling the vagina with powdered tannin, either rubbed into the interstices of lint, or packed as a powder into the vagina, and then covering the vulva with a napkin, so as to retain it. This, however, has to be done twice a day, requires the presence of a physician, and can therefore only be used with advantage in a hospital.

Dr. Wirgman: "I would ask if Dr. White has had any experience in the use of bichloride of mercury injections, in the strength of 1 to 4000. I have used it with decided benefit during the past six or eight months, and, I think, with better effect than the zinc or lead salts."

Dr. Jurist: "My experience with gonorrhœa is very limited, but I have recently employed cocaine in four per cent. solution, instructing the patient to inject ten or twelve drops before urination with good effect. The failures with cocaine are largely due to faults in the preparation.

"I would say that I have recently used a preparation of cocoa in the form of an infusion, which is twice the strength of the ordinary fluid extract, and is made with glycerine, without alcohol. This has marked anæsthetic effects on the throat, and it might be useful in urethral affections."

Dr. White: "I have used the bichloride of mercury in a few cases. At the time that Cheyne called attention to the antiseptic treatment of gonorrhœa, his treatment consisting in the use of various preparations of eucalyptus, I tried a number of antiseptics, as boracic acid, carbolic acid, carbolic acid and lime-water, and in a few cases bichloride of mercury, perhaps not sufficient to warrant me in generalizing. I gave up the whole method, however, as unsatisfactory, and not to be compared in its results with that which I have described.

"Whether or not gonorrhœa depends upon some irritant poison that can be destroyed by drugs, I think we have not as yet sufficient clinical evidence to warrant us in treating it exclusively on this theory.

"From cocaine I expect a great deal. In these affections the indications for its use are very manifest, and I expected to hear much about it to-night. Thus far my own results have not been very satisfactory."

EDITORIAL DEPARTMENT.

PERISCOPE.

Two Cases of Dangerous Hemorrhage from Rupture of the Vagina During First Coitus.

Dr. Paul F. Mundé reports the following cases in the *Boston Medical and Surgical Journal*, May 14, 1885:

Case 1. In October, 1881, I was called early in the morning to a hotel in this city to see a lady who had been married on the previous day. I found her in a state of collapse, pale, with occasional momentary loss of consciousness, all due to a violent hemorrhage immediately following the first coition. The husband, a physician himself, had vainly tried to arrest the hemorrhage by compression and persulphate of iron. Inspection showed blood trickling from the vaginal orifice and a slight rent of the hymen at the left anterior border, which, however, did not bleed; digital examination revealed a vagina distended with coagula, thus indicating that the blood flowed inward, as though from an internal wound. Placing the patient on the left side, I introduced Sims's speculum, cleared the vagina thoroughly of all coagula, and then at once saw the blood spurting from a deep fissure about an inch long, which extended inward from the nick in the hymen to the left and parallel with the urethra. Tight tamponing of the vagina with disks of alum-cotton, carried down the very vulva, arrested the bleeding at once and permanently, and no further trouble was experienced. Here really the rent was intra-vaginal, its starting-point merely being the hymen.

Case 2. April 16, 1883, I was called, in the evening, to see a lady twenty-two years of age, married the day before. The messenger said she was bleeding, and I suspected a similar injury to that in the previous case. I found a waxy-looking, evidently very feeble patient, who stated that coitus had been performed but once, toward morning, had been rather painful, that she then went to sleep, and was awakened some hours later by feeling wet about the genitals, and found herself lying in a pool of blood. A physician

was sent for, who gave ergot, but made no examination. The patient continued to ooze, and another physician was sent for, who ordered ice to be applied over the abdomen, but also made no examination. The hemorrhage continuing, he sent for me. I examined her by gaslight, and could detect no bleeding spot on the hymen. The examining finger found the vagina full of coagula. Through Sims's speculum the vagina was thoroughly cleansed, and a deep rent fully two and a half inches in length and half an inch in depth was at once seen in the left vaginal wall, extending from about an inch above the hymen nearly to the cul-de-sac. The edges of the rent were ragged, and its base bruised and torn. A firm tamponade with alum-cotton disks effectually controlled the bleeding, and when the patient called at may office, a week later, the wound was in a fair way toward closure.

In neither of these cases did there seem to be a disproportion of the relative organs, nor could I learn that any unusual violence had been used. The vaginæ were apparently perfectly healthy, both ladies being young and of good constitution.

In the second case of Zeiss, quoted by Dr. Chadwick, the recent confinement of the woman and the adhesion of the cervix to the lacerated side of the vagina would readily account for the friability of the tissues, as would also the senile atrophy of the vagina in Dr. Chadwick's own case. I recollect reading a similar case in a Canada medical journal a few years ago, where a sailor had been away from home for nine years, and on first coition with his wife on his return ruptured her vaginal vault to such an extent that she had to be taken to the hospital (in Montreal, I believe), and came near dying, She had not as yet, if I remember correctly, reached the menopause.

It is strange that two such accidents should have been produced by sailors, whose reputation for abstinence, when away from home, is not of the best.

The treatment must obviously consist in the tamponade, repeated as long as danger of recurrence exists, or, if the rent is external, where a vaginal tampon cannot well touch it, the deep suture.

Tar Cancer.

Before the Academy of Medicine in Ireland (March 13), Dr. Ball read a paper on cases of cutaneous epithelioma occurring amongst the operatives at a tar-distillery. The first case came under notice four years ago, when Dr. Ball removed the front of the scrotum for an epithelioma, which had been preceded by a hard horny wart. A recurrence took place at the side of the scrotum, not involving the operation-cicatrix. This was extirpated two years ago, and since then the patient had remained well. The second case was that of an old man, about 80 years of age, who had an extensive epitheliomatous ulcer on the back of the left hand, which had originated in a wart five or six years previously. On the back of the right hand, and for a distance of about two inches above the wrist, there were numerous hard horny warts, and similar growths were present on the forehead and nose, although none existed on the parts of the body covered by clothing. The forearm was amputated; but recurrence took place within a few months afterwards, the lymphatic vessels of the extremity being more obviously implicated than the glands. In addition to these two cases, Mr. Story had brought forward a case of epitheloma of the eyelid in a man who had been engaged at the same occupation. From inquiries made at the works, Dr. Ball learned that two others of the operatives had recently been somewhat similarly affected. One had an ulcerated wart on his nose, which had been destroyed by caustic, the cicatrix being still present; and another was stated to have had a large sore cut out of his face, but it was found impossible to trace this case. The close resemblance between these cases and the soot-cancer of Pott indicated that, like it, they owed their origin to long-continued irritation; in fact, it was quite possible that the active chemical agent was identical in both instances. As there were but seventeen men employed in this industry in Dublin, it would appear that the proportion of cases of epithelioma occurring amongst them was very considerable; the numbers were, however, much too small as a base for statistics. There were but three principal products manufactured at the works in question. First, a light liquid, which was called "naphtha-oil," came over from the stills; then a heavier fluid, called "creasote-oil," which contained, on an average, about 8 per cent. of phenol; and pitch was the residue of the process. The "creasote-oil" was the most irritating of these products; and although, as stated, it contained 8 per cent. of carbolic acid, the men washed their hands in it without hesitation. Dr. Ball had recently an opportunity of questioning a man who had been for a number of years engaged in one of the large carbolic acid manufactories in England. On this man's hands there were numerous warts, and he stated that such warts were not uncommon among the operatives, even those who only had to deal with the purest and most refined carbolic acid; but he had never known of any cases of cancer occurring amongst the work-people.

Case of Embolism.

The following case is reported in the *Med. Press* by Mr. Edward Skinner, of Sheffield:

Z. K., a girl, æt, 18, was first seen on January 23, 1885. She had no history of previous illnesses, having always enjoyed good health, with the exception of slight bilious attacks, which were accompanied by headache. Twelve or eighteen months previously she had gone to Manchester, being then in good health, and had returned after some months, looking very pale.

January 23. When first seen she was suffering from vomiting and severe pain in the left side of the head. The tongue was clean, but pale; the temperature and pulse were normal. The vomiting was thought to be cerebral, and an effervescing mixture was prescribed, and mustard poultices ordered to be applied to the left temple.

January 24. On the following day she expressed herself as "quite well." The vomiting had entirely ceased, and there was a total absence of pain.

January 25. She was seen again on the evening

of the following day, and was found in a semi-comatose condition. There was complete loss of motion in both extremities, and she could with difficulty be roused to answer questions. The pupils were slightly dilated, contracting under the influence of strong light; the temperature was rising, and the pulse was too quick to be counted.

January 26. On the 26th she was much worse. Although she could not be roused, she was still sensible to pain, as shown by the knitting of the brows when she was pinched. The temperature was still higher, and the patient was evidently sinking.

January 27. She died early on the morning of the 27th.

Post-mortem Examination.—The body was well-nourished, though pale. On opening the cavity of the cranium, the vessels over the left temple were found to be very much congested. The middle cerebral artery was completely blocked by a soft clot, and the vessels of the velum interpositum were occluded by another clot, which was much firmer and harder. On the surface of each thalamus opticus there was an area of redness about the size of a florin, and in the interior of each an abscess half an inch or thereabouts in diameter. The heart was very pale and flabby; the stomach was also pale, and on the posterior surface was the cicatrix of an old ulcer. The remaining organs were in a healthy condition, but more or less anæmic.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Drs. V. W. Allison and W. E. Ashton, of this city, have gathered together the old and oft-refuted arguments against legislation in venereal diseases, and they appear in a pamphlet issued from a society Proceedings. That they should continue to speak of the failure of such legislation abroad, when every medical traveler in Europe knows that it has neither failed nor been suspended, but is prized by the best continental sanitarians is an example of their arguments. If they had consulted the last report of the Secretary of the Navy, they would have found that our own naval surgeons testify positively to the advantages of such legislation in foreign ports. But the opponents of legislation, like the opponents of vaccination, only recognize facts that make for their own side.

BOOK NOTICES.

The Oleates. An Investigation into their Nature and Action. By John V. Shoemaker, A. M., M. D., etc. Philadelphia. F. A. Davis, 1885.

In this neat volume of a little over a hundred pages, Dr. Shoemaker presents a clear and brief sketch of the history of the oleates, their manufacture, physiological origin, and therapeutic effects. It is the result of ten years' attention to their position and value as a remedial agent, and is the most complete exposition of their action which has yet appeared. They are very valuable accessions to the materia medica, and should be familiar to every practitioner.

A System of Practical Medicine by American Authors. Edited by William Pepper, M. D., LL. D., assisted by Louis Starr, M. D. Vol. ii., sheep, 8vo.; pp. 1326. Philadelphia, Lea Bros. & Co.

The second volume of this important publication continues the subject of "General Diseases," and completes that of the "Diseases of the Digestive System." The number of contributors is twenty-two, among them many of the most prominent writers in our medical literature, as, for instance, Drs. Samuel G. Armor, Roberts Bartholow, Alonzo Clark, J. Solis Cohen, A. Jacobi, Joseph Leidy, J. Lewis Smith, William H. Welch, James T. Whittaker, and others equally well known. Each of these, it will be understood, takes the topic of his predilection and writes a monograph upon it, without undue amplification, and with that directness and practicability which are the characteristics of our best medical literature, and those in which it stands in such favorable contrast to the long-winded theorizing of German writers.

The usual size of these monographs, depending, of course, on the subject treated, may be judged by that on rheumatism, which is ninety pages; on scurvy, twenty pages; diseases of the tonsils, eleven pages; constipation, twenty pages; dysentery, thirty-five pages; diseases of the rectum and anus, fifty-five pages; intestinal worms, thirty-five pages, etc.

A reasonable number of good illustrations are inserted, and the paper and printing are of the best quality.

Berlin as a Medical Center. A Guide for American Practitioners and Students. By Horatio R. Bigelow, M. D. New England Publishing Co., Sandy Hook, Conn.

This is a handy little book that all American physicians who propose going to Berlin, either to visit or to study, should take with them. It contains full particulars of the hospitals, clinics and lectures, also information about hotels, restaurants, prices, shopping, etc., which will be sure to save the buyer of the book ten times its price within the first week.

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THE FUTURE OF AMERICAN HYGIENE.

Dr. Joseph G. Richardson, in his address before the recent meeting of the Pennsylvania State Medical Society, disclaimed any intention of appearing as a pretended prophet, except as a careful calculation of the progress of sanitary science, and its reactions with advancing civilization, such as could be made by every biological student who turned his attention to the subject, gave a certain pseudo-prophetic skill.

In the first place, he believed that an almost complete control of epidemics, by the numerous and well-appointed health boards of the future, sustained by an enlightened public opinion, and guided by the germ theory of disease to a much more accurate application of prophylactic measures, might be confidently expected.

Secondly, the benefits derivable from a daily practical application to personal sanitation of the steadily-improving weather prognostications must, he considered, prove of immense value, especially in the Northern States, where it has been estimated that one-half of all the diseases from which we suffer, originate in taking cold.

The advantages of knowing just what precaution in regard to clothing should be instituted against heat, cold, and wet, what days and what hours convalescents (especially children) may venture out into the open air, when is the best time for invalids to bear removal, and at what periods rheumatic and neuralgic patients must exercise additional care in regard to exposure, are obviously very great, and have a practical value which will be largely increased as the weather predictions improve in accuracy and precision.

The third and, perhaps, most important direction in which the sanitary science of the future will prodigiously expand its sphere of usefulness is in the control of the hereditary and diathetic maladies. Few can as yet properly estimate the value of the habit of looking at each case of threatened or developed disease as an essential element in the progress through life of the individual, modifying and being modified by the whole life history, which forms but an insignifi-

cant arc of an immense family curve, either ascending, as it were, towards the survival of the fittest, or descending towards the extinction of the unfit.

Lastly, the influence which agnostics who have renounced the hope of a blessed immortality, and who will therefore practically carry out the rules of hygiene as essential to the enjoyment of happiness in this world, exert in favor of sanitation, however much we may regret its existence, cannot be ignored, and should be most carefully guided in the right direction. This is the more necessary because we have grave reason to dread that the advancing tide of skepticism will continue to progress, unless more effectual efforts are made by wise and good men, from the pulpit and the religious press, to arrest it.

Notes and Comments.

Diagnosis of Carcinoma.

The Vienna correspondent of the *Lancet* (April 4, 1885,) says that Mr. E. Freund, a medical student, has described a method of diagnosing carcinoma with very few chemical aids in every stage of its development. He says there is in the blood of carcinomatous individuals a reducible substance, which he supposes to be sugar; and the blood of sarcomatous individuals contains an unusual amount of peptone. In cases of carcinoma diabetes was excluded, as was leukæmia in cases of sarcoma. In both diseases only a very small quantity of blood should be examined. In sixty-two cases of carcinoma, after the albuminous products had been removed with sesquichloride of iron and nitric acid, there was found in 0.3 cubic centimetre of blood a substance which distinctly reduced Fehling's solution. In eight cases the blood had to be heated for a few minutes with dilute muriatic acid, and glycogen, as such, could then be proved. After extirpation the sugar in the blood disappeared; in one case only it persisted, in which relapse took place. In fifteen cases of sarcoma, after the removal of the albuminous contents, peptone could distinctly be found.

A Novel Cure for Rheumatism.

El Siglo Medico relates the following singular cure from La Paz, Bolivia: A woman had suffered so much from rheumatism, that for six months she had hardly slept. Her right arm was so affected that it was quite useless; she could not work with it or dress herself. While in this state she heard of a countryman who suffered in the same way, and who had been cured by the accidental sting of a bee. As the pain caused by the sting could not be worse than that due to the rheumatism, she determined to try the same remedy. Three bees were obtained and made to sting her on the right arm. The success of the treatment was surprising and complete. On the following night she was able to sleep, and the acute pain had all but completely disappeared. The arm was naturally a good deal swollen, owing to the sting, but the swelling quickly disappeared with cold water dressing. The use of the arm gradually returned, and since there has been no symptom of rheumatism. It is said that the same remedy has been equally successful in several other persons.

The Incipient Stages of Inebriety.

Dr. T. D. Crothers, whose facilities for experience in all questions connected with alcoholism are very great, contributes a most readable and instructive article to the *Alienist and Neurologist* (April, 1885,) which he thus summarizes:

1. The study of inebriety reveals a well-marked disease passing through various stages, traceable by many and complex signs and symptoms.

2. The incipient stage seen before spirits are used is marked by dietetic delusions and other symptoms of nerve and brain irritability, all of which seem to depend on heredity or some obscure injury to the nerve and brain centres.

3. A group of symptoms can be found in most cases that may be termed pathognomonic, and will be seen in the later stages fully developed.

4. These early symptoms appear after the first toxic use of alcohol, and in some cases go on to full development, or are held in abeyance by some unknown force.

5. Practically, the recognition and study of this stage opens up a field of prevention and cure that will attract great attention at an early day.

Premonitory Symptoms of Insanity.

From the *London Med. Times*, April 4, we learn that Dr. Henry Sutherland read a paper on the above subject at Brighton recently, at the meeting of the Southeastern Branch of the British Medical Association. In this paper it was shown by cases which had been for a long time under

observation that various eccentric acts sometimes occur many (7, 12, 14) years before the actual outbreak of insanity takes place. Hence, the necessity for early prophylactic treatment in cases where the insane temperament is strongly marked. The mental and bodily symptoms usually noticed in the early stages and the indications for various drugs were also enumerated. The importance of appropriate moral and hygienic treatment was also insisted on. By attention to these details, a second attack was often averted; and if insanity had actually seized the patient, the duration of the disease was shorter and the outlook more hopeful than would have been the case had treatment been neglected.

A New Sound-Deadener.

In the *Brit. Med. Jour.*, April 18, Dr. Ward Cousins makes some remarks upon the injurious effects of noise, and describes a new sound-deadener. Reference is made to the injury sustained by the nervous system from persistent noise, especially in cases of mental excitability and brain disturbance. He considers also the injurious effects of noise upon the organ itself, and the evils caused by continual exposure through occupation. Having made the subject a matter of investigation among the boiler-makers and plate-workers employed in the Royal Naval Yard at Portsmouth, he found almost every man engaged in these occupations suffering more or less from deafness, and many had received permanent injury of the nervous structures of the ear. The sound-deadener he describes consists of a small elastic air-cushion. When adjusted in the aural orifice, it powerfully modifies and reduces the intensity of sound. It prevents the shock of noise, and protects the organ from concussion.

News and Miscellany.

Recent Experiments on the Severed Heads of Criminals.

The Paris correspondent of the *Lancet* (May 9) says that the question has again been mooted as to whether those who have been decapitated suffer; and after additional experiments on the head of Gamahut, who was guillotined on the 24th ult., for the murder of a widow lady in Paris, coupled with those related by Claude Bernard, the presumption is that they do; for under the influence of transfused blood, the blanched features recovered almost their normal expression, the eyelids were slightly open, and the lips quivered for a few seconds, as if to express some perception communicated from the brain. The conclusion, then, is that so long as the brain contains any blood, the head of the decapitated person, which falls into a receptacle prepared for the purpose, is capable of seeing, of hearing, and of knowing that it is separated from the body. This view, however, was repudiated by Professor Vulpian at the last meeting of the Academy of Medicine, on the following grounds: A strong blow applied to the head, or a less severe one to the stomach, would cause instantaneous syncope; that is to say, consciousness would for the moment be entirely abolished. So it would be in the case of the severed head, but of course without any possibility of recovery; the weight of the guillotine falling upon the neck would produce the same result. Moreover, syncope would be occasioned by the sudden division of the carotid arteries, and the consequent emptying of the arterial system of the brain. Therefore, at the very moment that the brain ceases to receive the vivifying fluid from the heart, it loses all power of excito-motility, as well as all power of sensation; all this transpires as quickly as thought, and its duration may be compared to a flash of lightning. It happened opportunely that a dog that was undergoing some experiments in Prof. Vulpian's laboratory was suddenly seized with a hemorrhage. Advantage was taken of this circumstance to immediately expose the brain and submit the latter to faradization. Scarcely half a minute had elapsed between the arrest of the circulation and the galvanic irritation. It was impossible to obtain any movement in the legs. The effects of the electricity produced in the muscles of the head and nose were not, according to Prof. Vulpian, due to the physiological transmission effected by the brain, but to the neighborhood of the source of irritation; the brain, having lost all power of excito-motility, would in this case act as a mere sponge; and if such a condition was found to exist for only half a minute after the arrest of the circulation, the interpretation put on the effects said to be produced on severed heads by other experimenters must certainly be considered erroneous.

An Appetite for Mortar.

The following peculiar case seems to possess sufficient interest to warant reproduction. It is reported in the *Lancet*, January 31, 1885, by Dr. Charles E. Adams:

W. T——, aged three years, is a pale, unhealthy-looking boy, decidedly rickety, with thickened bones at wrist and ankle-joints, carious teeth, and enlarged abdomen; he is also backward in his walking, not having full locomotive powers. His mother informed me that up to two years of age he was a fine baby; he then had an attack of bronchitis, and was treated at a London hospital, where he was offered admission, which his mother refused. The attack left him in a weak state, and soon after that time he showed signs of rickets. About eight months ago he exhibited a great desire for eating mortar. The mother discovered his propensity by observing that the wall near his bed was stripped of paper and holes picked in it. On inquiring into the cause, she found that the boy used to eat the mortar, and his eagerness after it was so great that he would get, even in inclement weather,

into the yard and pick the walls, and if prevented he cried. On occasions the child has been deprived of his mortar, and invariably when it is kept from him he vomits his food, and when had recourse to the symptom ceases. So at the present time it is the ordinary routine of his little sisters to collect mortar, which must not contain too much sand, as he is particular in the quality. Lime-water has been substituted, but this the child refuses to be contented with, and will have his food in a more solid form. He is now suffering from small-pox, and, on waking up in the night, cries for a piece or two of lime before going to sleep again. The quantity consumed during twenty-four hours is rather more than half a teacupful. His mother tells me he has never been weaned, and her custom has been to suckle her other children up to three years of age. To corroborate the mother's statement, I have frequently seen him partake of the mortar, which he crunches up and swallows with great relish.

Bradford County Medical Society.

A meeting of the Bradford County Medical Society was held at the Stimson House, in Athens, Pa., June 16, 1885—Dr. Lyman, of Towanda, in the chair, and Dr. Reed, of Wysox, Secretary.

Dr. Brown, Athens, reported that the delegates attended the State Convention, and they considered no report was needed, as the entire proceedings had already been published in the journals.

Dr. Horton, delegate to the American Medical Association, made his report.

Dr. Payne advocated the appointment of experts by the courts and prohibiting their employment by the plaintiff or defendant.

Drs. Brown and Payne urged the Society to be ready to assist the State Board of Health in enforcing sanitary measures.

On motion, the Society pledged their hearty cooperation in such measures as the State Board may advise.

Dr. Horton read a very interesting paper on constipation, which was followed by an animated discussion of the subject in which most of the members participated.

The time and place of the next meeting was fixed at Wysox, on the last Tuesday of July.

After the meeting, a reception and banquet was given by Dr. Brown at his residence.

G. F. B.

The Rights of Health Officers.

A very curious case has been begun in San Francisco, as an offshoot from the famous Sharon divorce suit. During the progress of that case a witness testified that Miss Hill, the plaintiff, placed some of Senator Sharon's undergarments in a new-made grave for the purpose of acting as a love charm to secure the affections of the millionare senator.

A health officer of San Francisco, at the instigation of Senator Sharon's counsel, opened the grave to see if the articles were really deposited there. The charge is now made that the grave was desecrated, and suit for $5,000 damages has been brought. The purport of the suit is to test the right of the health officers to take such action.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, for the week ended June 13, 1885.

Wyman, Walter, surgeon. To proceed to New York, N. Y., and assume charge of the service, relieving Surgeon Sawtelle, June 8, 1885.

Banks, C. E., passed assistant surgeon, granted leave of absence for thirty days, June 12, 1885.

Personal.

—At their recent meeting in June, the Board of Regents of the Kansas State University elected Lucius E. Sayre, Ph. D., of Philadelphia, to the newly-created Chair of Pharmacy in that institution. Professor Sayre is well known as one of the most skillful pharmaceutical chemists of this city, and both as a lecturer and author has an established reputation.

—Dr. Laurence Turnbull, of this city, has been invited to take a prominent part in a special debate on "Anæsthetics" in the Section of Pharmacology and Therapeutics of the British Medical Association to meet in Cardiff during the last week of July. Dr. Turnbull's writings on anæsthetics, and particularly on "Etherization by the Rectum," are well known in England, and the officers of this section urge him strongly to give them his experience.

Items.

—Lawson Tait says: "The amount of worry which is given him by every case of hysterectomy, even when successful, is such as to be almost beyond the recompense of any fee; and the disappointment inflicted by every death is quite indescribable."

—The condition of science and education generally in Cuba is, according to the *Eco Cientifico de Las Villas*, most flourishing. All the faculties exist in the University, and studies can be carried on there in all branches up to the degree of Doctor. Each province has an institution for secondary education. The clinical and obstetrical departments of the hospitals are most satisfactory, and there are numerous practitioners of ability. Surgery has of late made rapid strides, all the most serious operations being now skillfully performed on the island. There are also numerous scientific and professional societies in a flourishing state.

—"Save me, doctor, and I'll give you a thousand dollars." The doctor gave him a remedy that eased him, and he called out, "Keep at it, doctor, and I'll give you a check for five hundred dollars." In half an hour more he was able to sit up, and he calmly remarked, "Doctor, I feel like giving you a fifty-dollar bill." When the doctor was ready to go, the sick man, by this time up and dressed, followed him to the door, and said: "Say, doctor, send in your bill the first of the month." When six months had been gathered to Time's bosom, the doctor sent in a bill for five dollars. He was pressed to cut it down to three, and after so doing was obliged to sue to get it, and after he got judgment, the patient put in a stay of execution.—*Cour. Rec.*

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